

Result No.	Score	Query Match	Length	DB ID	Description
1	3406	100.0	652	14	US-10-232-665-2 Sequence 2, App1
2	3406	100.0	652	15	US-10-614-076-98 Sequence 9, App1
3	3406	100.0	652	15	US-10-614-076-111 Sequence 11, App1
4	3406	100.0	652	15	US-10-782-141-11 Sequence 11, App1
5	3402	99.9	652	15	US-10-614-076-68 Sequence 6, App1
6	3401	99.9	652	14	US-10-232-665-6 Sequence 14, App1
7	3401	99.9	652	15	US-10-614-076-14 Sequence 32, App1
8	3400	99.8	652	15	US-10-614-076-32 Sequence 48, App1
9	3400	99.8	652	15	US-10-614-076-18 Sequence 44, App1
10	3399	99.8	652	15	US-10-614-076-14 Sequence 54, App1
11	3399	99.8	652	15	US-10-614-076-54 Sequence 8, App1
12	3398	99.8	652	15	US-10-614-076-8 Sequence 26, App1
13	3398	99.8	651	15	US-10-614-076-52 Sequence 52, App1
14	3398	99.8	652	15	US-10-614-076-42 Sequence 42, App1
15	3396	99.7	652	15	US-10-614-076-12 Sequence 12, App1
16	3396	99.7	652	15	US-10-614-076-64 Sequence 64, App1
Run on:	February 14, 2005, 15:07:26 ; Search time 139 Seconds (without alignments)				Sequence 10, App1
Title:	US-10-614-076-98				Sequence 34, App1
Perfect score:	3406				Sequence 20, App1
Sequence:	1 MNPNNRSEHDIRKVTTPNSEL.....SFVSNKEKIYDKIBPIPQL 652				Sequence 66, App1
Scoring table:	BLOSUM62				Sequence 6, App1
Gapcost:	10.0				Sequence 30, App1
Searched:	1376875 seqs, 3226749119 residues				Sequence 60, App1
Total number of hits satisfying chosen parameters:	1376875				Sequence 18, App1
Minimum DB seq length:	0				Sequence 40, App1
Maximum DB seq length:	20000000000				Sequence 4, App1
Post-processing:	Minimum Match 0‡				Sequence 50, App1
	Maximum Match 100‡				Sequence 24, App1
	Listing first 150 summaries				Sequence 28, App1
Database :	Published Applications AA:*				Sequence 46, App1
	1: /cn2_6_ptodata/2/pubbaa/US07_PUBCOMB_pep:*				Sequence 22, App1
	2: /cg2_6_ptodata/2/pubbaa/PCT_NEW_PUB_pep:*				Sequence 36, App1
	3: /cg2_6_ptodata/2/pubbaa/US06_NEW_PUB_pep:*				Sequence 38, App1
	4: /cn2_6_ptodata/2/pubbaa/US06_PUBCOMB_pep:*				Sequence 50, App1
	5: /cg2_6_ptodata/2/pubbaa/US07_NEW_PUB_pep:*				Sequence 2, App1
	6: /cn2_6_ptodata/2/pubbaa/PCTNS_PUBCOMB_pep:*				Sequence 10, App1
	7: /cn2_6_ptodata/2/pubbaa/US05_NEW_PUB_pep:*				Sequence 18, App1
	8: /cg2_6_ptodata/2/pubbaa/US08_PUBCOMB_pep:*				Sequence 20, App1
	9: /cg2_6_ptodata/2/pubbaa/US09_PUBCOMB_pep:*				Sequence 62, App1
	10: /cn2_6_ptodata/2/pubbaa/US09B_PUBCOMB_pep:*				Sequence 39, App1
	11: /cg2_6_ptodata/2/pubbaa/US09C_PUBCOMB_pep:*				Sequence 100, App1
	12: /cn2_6_ptodata/2/pubbaa/US09_NEW_PUB_pep:*				Sequence 108, App1
	13: /cn2_6_ptodata/2/pubbaa/US10_PUBCOMB_pep:*				Sequence 12, App1
	14: /cg2_6_ptodata/2/pubbaa/US10_PUBCOMB_pep:*				Sequence 24, App1
	15: /cn2_6_ptodata/2/pubbaa/US10C_PUBCOMB_pep:*				Sequence 56, App1
	16: /cn2_6_ptodata/2/pubbaa/US10D_PUBCOMB_pep:*				Sequence 10, App1
	17: /cg2_6_ptodata/2/pubbaa/US10_NNEW_PUB_pep:*				Sequence 112, App1
	18: /cn2_6_ptodata/2/pubbaa/US11_NNEW_PUB_pep:*				Sequence 18, App1
	19: /cn2_6_ptodata/2/pubbaa/US60_NNEW_PUB_pep:*				Sequence 20, App1
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RESULT 2
US-10-614-076-98
; Sequence 98, Application US/10614076
; Publication No. US2004033523A1
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Maiwar, Thomas M.

RESULT 2

Page 3

TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS							
FILE REFERENCE: MECC-218--1 11792.0218.DVUS01							
CURRENT APPLICATION NUMBER: US 10/614,076							
CURRENT FILING DATE: 2003-07-03							
PRIORITY NUMBER: 09/427,770							
PRIORITY FILING DATE: 1999-10-27							
PRIORITY APPLICATION NUMBER: 08/993,722							
PRIORITY FILING DATE: 1997-12-18							
NUMBER OF SEQ ID NOS: 113							
SOFTWARE: Patentin version 3.2							
SEQ ID NO: 98							
LENGTH: 652							
TYPE: PRT							
ORGANISM: Bacillus thuringiensis							
JS-10-614-076-98							
Query Match Score 3406; DB 15; Length 652;							
Best Local Similarity 100.0%; Pred. No. 5.1e-262;							
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;							
Dy	1	MNPNNRSEHDITKTPNSELQTNHNOYPLADNPNSTEELNYKEFIRMTEDSDAPWKAFMAQVEYLIDNS	60				
Dy	1	MNPNNRSEHDITKTPNSELQTNHNOYPLADNPNSTEELNYKEFIRMTEDSDAPWKAFMAQVEYLIDNS	60				
Dy	61	TVKDAYGTCISVVGQOLGVNGVPPAGALTSEYQSFELNTIWPSDADPKAFMAQVEYLIDNS	120				
Dy	61	TVKDAYGTCISVVGQOLGVNGVPPAGALTSEYQSFELNTIWPSDADPKAFMAQVEYLIDNS	120				
Dy	121	KIEEYAKSKAKLAELQQLQNFEDYNAISNKHKTPLSLRSRSQRDIRELSSQAESHFRN	180				
Dy	121	KIEEYAKSKAKLAELQQLQNFEDYNAISNKHKTPLSLRSRSQRDIRELSSQAESHFRN	180				
Dy	181	SMPSPAVSKPEVLFLPTYAQANTHILLKDAQVFGEWGSSEDVAEFTYHQKLQQY	240				
Dy	181	SMPSPAVSKPEVLFLPTYAQANTHILLKDAQVFGEWGSSEDVAEFTYHQKLQQY	240				
Dy	241	TDHCVNWWYNGLNLGRGSTYDAWKENFREREMTILTVLDFPFYDIRLYSKGVKTTEL	300				
Dy	241	TDHCVNWWYNGLNLGRGSTYDAWKENFREREMTILTVLDFPFYDIRLYSKGVKTTEL	300				
Dy	301	TRDIFTDPFSLNLTLQEQGPFLSINSIRKPHFLYLOGIEFTHTLRQPGYFGKDSFNNW	360				
Dy	301	TRDIFTDPFSLNLTLQEQGPFLSINSIRKPHFLYLOGIEFTHTLRQPGYFGKDSFNNW	360				
Dy	361	SGNYVETRPPIGSKKITSPPYGDKSTEPIVQLSLFSQKYRTIANTDVAAMPNGKVYLG	420				
Dy	361	SGNYVETRPPIGSKKITSPPYGDKSTEPIVQLSLFSQKYRTIANTDVAAMPNGKVYLG	420				
Dy	421	VTKYDFSOYDDQKNETSTOTYDYSKNGHYSAQDSIDQLPPTTDEPLEKAYSHOLNYAE	480				
Dy	421	VTKYDFSOYDDQKNETSTOTYDYSKNGHYSAQDSIDQLPPTTDEPLEKAYSHOLNYAE	480				
Dy	481	CPLMDQDRRGTRGPFPFWTHRSDFENTIDAEEKTOLPVKAYALSSASIIIEPGFTGGNL	540				
Dy	481	CPLMDQDRRGTRGPFPFWTHRSDFENTIDAEEKTOLPVKAYALSSASIIIEPGFTGGNL	540				
Dy	541	LFLKESNSIAKFKYTLNSAALLQRVRVRYASTNLRLFQNSNDFLVITYINKTMNK	600				
Dy	541	LFLKESNSIAKFKYTLNSAALLQRVRVRYASTNLRLFQNSNDFLVITYINKTMNK	600				
Dy	601	DDDTITYQTFDATTNSMGFSGDKNPELIGAESFSNEKEYIDKIKFIPVQL	652				
Dy	601	DDDTITYQTFDATTNSMGFSGDKNPELIGAESFSNEKEYIDKIKFIPVQL	652				

RESULT 4

US-10-782-141-11

; Sequence 11, Application US/10782141
; Publication No. US2004019791A1
; GENERAL INFORMATION:
; APPLICANT: Carozzi, Nadine
; APPLICANT: Hargiss, Tracy
; APPLICANT: Koziel, Michael G.
; APPLICANT: Duck, Nicholas B.
; APPLICANT: Carr, Brian
; TITLE OF INVENTION: AXMT-014, A Delta-Endotoxin Gene and
; TITLE OF INVENTION: Methods for Its Use
; FILE REFERENCE: 045600/274143
; CURRENT APPLICATION NUMBER: US/10/782,141
; CURRENT FILING DATE: 2004-02-20
; PRIOR APPLICATION NUMBER: 60/448,632
; PRIOR FILING DATE: 2003-02-20
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO: 11
; LENGTH: 652
; TYPE: PRT
; ORGANISM: Bacillus thuringiensis
; US-10-782-141-11

Query Match 100.0%; Score 3406; DB 16; Length 652;
Best Local Similarity 100.0%; Pred. No. 5.1e-262;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTPSELQTNHQYPLADNPNSTLLENYKEFLRMTEDSSTEVLNDS 60
Db 1 MNPNNRSEHDTIKVTPSELQTNHQYPLADNPNSTLLENYKEFLRMTEDSSTEVLNDS 60

Qy 61 TVKDAVGTTGIVSQVQIIGVGVPPFAGALTSTFQSUNTIWPSDADPMKAQVEVLIDK 120
Db 61 TVKDAVGTTGIVSQVQIIGVGVPPFAGALTSTFQSUNTIWPSDADPMKAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELQGLQNFDYVNAISWAKTPLSLRSKRSQDRTRLEFSQAESHFRN 180
Db 121 KIEEYAKSKALAELQGLQNFDYVNAISWAKTPLSLRSKRSQDRTRLEFSQAESHFRN 180

Qy 181 SNSFAVSKFEVLFPLTYQAQANTHLLKDQVFGREWGSSEDVAEFYRQLKTQY 240
Db 181 SNSFAVSKFEVLFPLTYQAQANTHLLKDQVFGREWGSSEDVAEFYRQLKTQY 240

Qy 241 TDHCVNWNVNGNGLRSTDAWKENRFREMILTVLDLIVLPFPYDILYSKGVKTEL 300
Db 241 TDHCVNWNVNGNGLRSTDAWKENRFREMILTVLDLIVLPFPYDILYSKGVKTEL 300

Qy 301 TRDIFTDBIFSLNTLQEYGPFTSIENSIRKPHLFDYLGIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDBIFSLNTLQEYGPFTSIENSIRKPHLFDYLGIEFHTRLQPGYFGKDSFNYW 360

Qy 361 SGNYVTRPSSGSKTITSPFGDKSTEPVQLSFQDKYVRTIANTDAWPNGKVYLG 420
Db 361 SGNYVTRPSSGSKTITSPFGDKSTEPVQLSFQDKYVRTIANTDAWPNGKVYLG 420

Qy 421 VTKVDFSOYDQKNETSTOTYDSKRNGHVSQDSIDOLPPETTDELEYASHOLNYAE 480
Db 421 VTKVDFSOYDQKNETSTOTYDSKRNGHVSQDSIDOLPPETTDELEYASHOLNYAE 480

Qy 481 CFLMDQRGTIPPFWTWRSDFENTDAEKITOLPVKAYALSSGASITISPGFTGGNL 540
Db 481 CFLMDQRGTIPPFWTWRSDFENTDAEKITOLPVKAYALSSGASITISPGFTGGNL 540

Qy 541 LFLKESSNSIAKFVTLNSAIIQRTYVRIRASTTNRLFVQNSNNDFLVYINKTMNK 600
Db 541 LFLKESSNSIAKFVTLNSAIIQRTYVRIRASTTNRLFVQNSNNDFLVYINKTMNK 600

Qy 601 DDDLTQTFDLATTNSMGSQDKNEELIGAESFVSNKEYIDKLEFIPYQL 652
Db 601 DDDLTQTFDLATTNSMGSQDKNEELIGAESFVSNKEYIDKLEFIPYQL 652

RESULT 5

US-10-614-076-68

; Sequence 68, Application US/10614076
; Publication No. US200403353A1
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brusock, Susan M.
; APPLICANT: Malver, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulezza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
; CURRENT APPLICATION NUMBER: MBO-218--1 11/792.0218.DV0501
; CURRENT FILING DATE: 2003-10-07
; FILE REFERENCE: MBO-218--1 11/792.0218.DV0501
; CURRENT APPLICATION NUMBER: US/10/614,076
; CURRENT FILING DATE: 2003-07-03
; PRIOR APPLICATION NUMBER: 1599-10-27
; PRIOR FILING DATE: 09/4/27, 1970
; PRIOR APPLICATION NUMBER: 08/993,722
; PRIOR FILING DATE: 1977-12-18
; NUMBER OF SEQ ID NOS: 113
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO: 68
; LENGTH: 652
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Recombinant delta endotoxin
; US-10-614-076-68

Query Match 99.9%; Score 3402; DB 15; Length 652;
Best Local Similarity 99.9%; Pred. No. 1.1e-261;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MNPNNSEHDTIKVTPSELQTNHQYPLADNPNSTLLENYKEFLRMTEDSSTEVLNDS 60
Db 1 MNPNNSEHDTIKVTPSELQTNHQYPLADNPNSTLLENYKEFLRMTEDSSTEVLNDS 60

Qy 61 TVKDAVGTTGIVSQVQIIGVGVPPFAGALTSTFQSUNTIWPSDADPMKAQVEVLIDK 120
Db 61 TVKDAVGTTGIVSQVQIIGVGVPPFAGALTSTFQSUNTIWPSDADPMKAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELQGLQNFDYVNAISWAKTPLSLRSKRSQDRTRLEFSQAESHFRN 180
Db 121 KIEEYAKSKALAELQGLQNFDYVNAISWAKTPLSLRSKRSQDRTRLEFSQAESHFRN 180

Qy 181 SNSFAVSKFEVLFPLTYQAQANTHLLKDQVFGREWGSSEDVAEFYRQLKTQY 240
Db 181 SNSFAVSKFEVLFPLTYQAQANTHLLKDQVFGREWGSSEDVAEFYRQLKTQY 240

Qy 241 TDHCVNWNVNGNGLRSTDAWKENRFREMILTVLDLIVLPFPYDILYSKGVKTEL 300
Db 241 TDHCVNWNVNGNGLRSTDAWKENRFREMILTVLDLIVLPFPYDILYSKGVKTEL 300

Qy 301 TRDIFTDBIFSLNTLQEYGPFTSIENSIRKPHLFDYLGIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDBIFSLNTLQEYGPFTSIENSIRKPHLFDYLGIEFHTRLQPGYFGKDSFNYW 360

Qy 361 SGNYVTRPSSGSKTITSPFGDKSTEPVQLSFQDKYVRTIANTDAWPNGKVYLG 420
Db 361 SGNYVTRPSSGSKTITSPFGDKSTEPVQLSFQDKYVRTIANTDAWPNGKVYLG 420

Qy 421 VTKVDFSOYDQKNETSTOTYDSKRNGHVSQDSIDOLPPETTDELEYASHOLNYAE 480
Db 421 VTKVDFSOYDQKNETSTOTYDSKRNGHVSQDSIDOLPPETTDELEYASHOLNYAE 480

Qy 481 CFLMDQRGTIPPFWTWRSDFENTDAEKITOLPVKAYALSSGASITISPGFTGGNL 540
Db 481 CFLMDQRGTIPPFWTWRSDFENTDAEKITOLPVKAYALSSGASITISPGFTGGNL 540

Qy 541 LFLKESSNSIAKFVTLNSAIIQRTYVRIRASTTNRLFVQNSNNDFLVYINKTMNK 600
Db 541 LFLKESSNSIAKFVTLNSAIIQRTYVRIRASTTNRLFVQNSNNDFLVYINKTMNK 600

Qy 601 CFLMDQRGTIPPFWTWRSDFENTDAEKITOLPVKAYALSSGASITISPGFTGGNL 540

RESULT 6
 ; Sequence 6, Application US/10232665
 ; Publication No. US20030115630A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; CURRENT APPLICATION NUMBER: US10/232,655
 ; CURRENT FILING DATE: 2002-08-29
 ; PRIOR APPLICATION NUMBER: US/09/377,466
 ; PRIOR FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 6
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic or
 ; OTHER INFORMATION: non-naturally occurring amino acid sequence encoded by SEQ ID NO:
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1) .. (652)
 ; US-10-232-665-6

Query Match 99.9%; Score 3401; DB 14; Length 652;
 Best Local Similarity 99.8%; Pred. No. 1.3e-261; Indels 0; Gaps 0;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60
 Db 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60

Qy 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60
 Db 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60

Qy 61 TVKDAVGTVGSLVWQVQILGTGVPPAGALTFSYQSLNWKTPSLRSKRSQDRILFQAEASHFRN 180
 Db 61 TVKDAVGTVGSLVWQVQILGTGVPPAGALTFSYQSLNWKTPSLRSKRSQDRILFQAEASHFRN 180

Qy 121 KIEEYAKSKALAEQGLQLNQFEDVNALNSWKRCPPLRSKRSQDRILFQAEASHFRN 180
 Db 121 KIEEYAKSKALAEQGLQLNQFEDVNALNSWKRCPPLRSKRSQDRILFQAEASHFRN 180

Qy 181 SMPSFAVSKPEVFLPPTVQAAQANTHLLKDAOVFGEEGYSSVEDVAFYHROLKLHQY 240
 Db 181 SMPSFAVSKPEVFLPPTVQAAQANTHLLKDAOVFGEEGYSSVEDVAFYHROLKLHQY 240

Qy 241 TDHCVNWNVNGLNLQRGSTYDAWKENFRRENTLTVLDLIVLFPFYDIRLYSKGVKTEL 300
 Db 241 TDHCVNWNVNGLNLQRGSTYDAWKENFRRENTLTVLDLIVLFPFYDIRLYSKGVKTEL 300

Qy 301 TRDIFTDPFSNLTLQEVQPTFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 360
 Db 301 TRDIFTDPFSNLTLQEVQPTFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 360

Qy 361 SGNTVETRSPTRSIGSSXTTSPFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 420
 Db 361 SGNTVETRSPTRSIGSSXTTSPFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 420

Qy 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSQAQSDSIOLPPETDEPLEKAYSHOLAYE 480
 Db 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSQAQSDSIOLPPETDEPLEKAYSHOLAYE 480

Qy 481 CFIMODRRGTTIPPFWTHRSVDPENTIDAERKITOLPVVKAYALSSGASIEGPGFTGGNL 540
 Db 481 CFIMODRRGTTIPPFWTHRSVDPENTIDAERKITOLPVVKAYALSSGASIEGPGFTGGNL 540

Qy 541 LFLKESSNSIAKEFKTTLNSALLQRYRVRYRASATNLFLVQNSNNDLVIVINKTMNK 600
 Db 541 LFLKESSNSIAKEFKTTLNSALLQRYRVRYRASATNLFLVQNSNNDLVIVINKTMNK 600

Qy 601 DDDLTYQTFLATINSNMGSQGDKNELIGAESPVSNKLYIDKIEFIPVQL 652
 Db 601 DDDLTYQTFLATINSNMGSQGDKNELIGAESPVSNKLYIDKIEFIPVQL 652

Qy 601 DDDLTYNTEDLATINSNMGSQGDKNELIGAESPVSNKLYIDKIEFIPVQL 652
 Db 601 DDDLTYNTEDLATINSNMGSQGDKNELIGAESPVSNKLYIDKIEFIPVQL 652

RESULT 7
 US-10-614-076-14
 ; Sequence 14, Application US/10614076
 ; Publication No. US20040033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatkin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO:218--1 11792-0218.DVUS01
 ; CURRENT APPLICATION NUMBER: US/10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIORITY APPLICATION NUMBER: 09/427,770
 ; PRIORITY FILING DATE: 1999-10-27
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 14
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-14

Query Match 99.9%; Score 3401; DB 15; Length 652;
 Best Local Similarity 99.8%; Pred. No. 1.3e-261; Indels 0; Gaps 0;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60
 Db 1 MNPNRNRSEHDITKTPNSBLQTNHQNPYADNPNSTLFLNKEFLRMTEDSSTEVLDS 60

Qy 61 TVKDAVGTVGSLVWQVQILGTGVPPAGALTFSYQSLNWKTPSLRSKRSQDRILFQAEASHFRN 180
 Db 61 TVKDAVGTVGSLVWQVQILGTGVPPAGALTFSYQSLNWKTPSLRSKRSQDRILFQAEASHFRN 180

Qy 121 KIEEYAKSKALAEQGLQLNQFEDVNALNSWKRCPPLRSKRSQDRILFQAEASHFRN 180
 Db 121 KIEEYAKSKALAEQGLQLNQFEDVNALNSWKRCPPLRSKRSQDRILFQAEASHFRN 180

Qy 181 SMPSFAVSKPEVFLPPTVQAAQANTHLLKDAOVFGEEGYSSVEDVAFYHROLKLHQY 240
 Db 181 SMPSFAVSKPEVFLPPTVQAAQANTHLLKDAOVFGEEGYSSVEDVAFYHROLKLHQY 240

Qy 241 TDHCVNWNVNGLNLQRGSTYDAWKENFRRENTLTVLDLIVLFPFYDIRLYSKGVKTEL 300
 Db 241 TDHCVNWNVNGLNLQRGSTYDAWKENFRRENTLTVLDLIVLFPFYDIRLYSKGVKTEL 300

Qy 301 TRDIFTDPFSNLTLQEVQPTFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 360
 Db 301 TRDIFTDPFSNLTLQEVQPTFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 360

Qy 361 SGNTVETRSPTRSIGSSXTTSPFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 420
 Db 361 SGNTVETRSPTRSIGSSXTTSPFISIENSTRKPHLFDLQGIEPHTRLQGYFKDSFNYW 420

Qy 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSQAQSDSIOLPPETDEPLEKAYSHOLAYE 480
 Db 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSQAQSDSIOLPPETDEPLEKAYSHOLAYE 480

Qy 361 SGNYVETRSPISGSKTKITSPFYGDKSTEPYOKLSPDGQKYRTIANTDVAAPNGKVYLG 420
 Db 361 SGNYVETRSPISGSKTKITSPFGDKSTEPEOKLSPDGQKYRTIANTDVAAPNGKVYLG 420
 Qy 421 VTKVDFEQQDDQNETSTQTYDSKRNGHVSQDSDQLPPTTDEPLEKAYSHOLNAYA 480
 Db 421 VTKVDFEQQDDQNETSTQTYDSKRNGHVSQDSDQLPPTTDEPLEKAYSHOLNAYA 480
 Qy 481 CPLMDQRGTIPFPTWTHRSDFENTDAEKITQLPVVKAYALSSASIIEGPFTGGL 540
 Db 481 CPLMDQRGTIPFPTWTHRSDFENTDAEKITQLPVVKAYALSSASIIEGPFTGGL 540
 Qy 541 LFLKESNSIAFKVTULNSAALLQYRVRIRYASTNLRFVQNSNDFLVYINKTMK 600
 Db 541 LFLKESNSIAFKVTULNSAALLQYRVRIRYASTNLRFVQNSNDFLVYINKTMK 600
 Qy 601 DDDLTYQTDFLATTSNSNGCFSKDNELIJGAESFSNEKITYDKLEFIPVQL 652
 Db 601 DDDLTYQTDFLATTSNSNGCFSKDNELIJGAESFSNEKITYDKLEFIPVQL 652

RESULT 8
 US-10-614-076-32
 / Sequence 8, Application US/10614076
 / Publication No. US2004033523A1
 / GENERAL INFORMATION:
 / APPLICANT: English, Leigh H.
 / APPLICANT: Brussock, Susan M.
 / APPLICANT: Malvar, Thomas M.
 / APPLICANT: Bryson, James W.
 / APPLICANT: Kulesza, Caroline A.
 / APPLICANT: Walters, Frederick S.
 / APPLICANT: Staln, Stephen L.
 / TITLE OF INVENTION: POLYPERIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 / CURRENT APPLICATION NUMBER: US/10/614,076
 / FILE REFERENCE: MECO-218--1 11792 0218_DUVS01
 / CURRENT FILING DATE: 2003-07-03
 / PRIOR APPLICATION NUMBER: 09/427,770
 / PRIOR FILING DATE: 1999-10-27
 / PRIOR APPLICATION NUMBER: 08/993,722
 / PRIOR FILING DATE: 1997-12-18
 / NUMBER OF SEQ ID NOS: 113
 / SOFTWARE: Patentin version 3.2
 / SEQ ID NO: 32
 / LENGTH: 652
 / TYPE: PRT
 / ORGANISM: Artificial sequence
 / FEATURE:
 / OTHER INFORMATION: Recombinant delta endotoxin
 us-10-614-076-32

Query Match 99.8%; Score 3400; DB 15; Length 652;
 Best Local Similarity 99.8%; Pred. No. 1..e-261;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDITKVTPLNSELOTNHNOYPLADNPNSTLELNKEFRMTEDSSTEVLDNS 60
 Db 1 MNPNNRSEHDITKVTPLNSELOTNHNOYPLADNPNSTLELNKEFRMTEDSSTEVLDNS 60
 Qy 61 TVKDAVGCGTISVQGQILGVGVPGAGALTSPYOSFLNTIWPSDADPKFAAQVEVLIDK 120
 Db 61 TVKDAVGCGTISVQGQILGVGVPGAGALTSPYOSFLNTIWPSDADPKFAAQVEVLIDK 120
 Qy 121 KIEEYAKSKALAELQGLONFEDYVNAWSKCKTPLSLRSKRSQDRIRELNSKQAEQSHFRN 180
 Db 121 KIEEYAKSKALAELQGLONFEDYVNAWSKCKTPLSLRSKRSQDRIRELNSKQAEQSHFRN 180
 Qy 181 SMPFAVSKPFEVLFPLTPYQAQANTHLLIKDQVGEWGYSSVEDAEFYHQLKTQY 240
 Db 181 SMPFAVSKPFEVLFPLTPYQAQANTHLLIKDQVGEWGYSSVEDAEFYHQLKTQY 240
 Qy 241 TDHCVNWTWVGLNGLRGSTYDAWYKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTEL 300

RESULT 9
 US-10-614-076-48
 / Sequence 48, Application US/10614076
 / Publication No. US2004033523A1
 / GENERAL INFORMATION:
 / APPLICANT: English, Leigh H.
 / APPLICANT: Brussock, Susan M.
 / APPLICANT: Malvar, Thomas M.
 / APPLICANT: Bryson, James W.
 / APPLICANT: Kulesza, Caroline A.
 / APPLICANT: Walters, Frederick S.
 / APPLICANT: Staln, Stephen L.
 / APPLICANT: Von Tersch, Michael A.
 / TITLE OF INVENTION: POLYPERIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 / FILE REFERENCE: MECO-218--1 11792 0218_DUVS01
 / CURRENT APPLICATION NUMBER: US/10/614,076
 / CURRENT FILING DATE: 2003-07-03
 / PRIOR APPLICATION NUMBER: 09/427,770
 / PRIOR FILING DATE: 1999-10-27
 / PRIOR APPLICATION NUMBER: 08/993,722
 / PRIOR FILING DATE: 1997-12-18
 / NUMBER OF SEQ ID NOS: 113
 / SOFTWARE: Patentin version 3.2
 / SEQ ID NO: 48
 / LENGTH: 652
 / TYPE: PRT
 / ORGANISM: Artificial sequence
 / FEATURE:
 / OTHER INFORMATION: Recombinant delta endotoxin
 us-10-614-076-48

Query Match 99.8%; Score 3400; DB 15; Length 652;
 Best Local Similarity 99.7%; Pred. No. 1..e-261;
 Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDITKVTPLNSELOTNHNOYPLADNPNSTLELNKEFRMTEDSSTEVLDNS 60
 Db 1 MNPNNRSEHDITKVTPLNSELOTNHNOYPLADNPNSTLELNKEFRMTEDSSTEVLDNS 60
 Qy 61 TVKDAVGCGTISVQGQILGVGVPGAGALTSPYOSFLNTIWPSDADPKFAAQVEVLIDK 120
 Db 61 TVKDAVGCGTISVQGQILGVGVPGAGALTSPYOSFLNTIWPSDADPKFAAQVEVLIDK 120
 Qy 121 KIEEYAKSKALAELQGLONFEDYVNAWSKCKTPLSLRSKRSQDRIRELNSKQAEQSHFRN 180

Db 121 KIEEYAKSKALAELQGLQNNFEDYYNALLSWKKTPSLSLRSKRSQRIRLFSQAESHFRN 180
 Qy 181 SMPFAVSKFPEVLFLPTYAQANTHLLLKDAOVFGEENWGSSESDPVAEFYRQLKTOQY 240
 Db 181 SMPFAVSKFPEVLFLPTYAQANTHLLLKDAOVFGEENWGSSESDPVAEFYRQLKTOQY 240
 Qy 241 TDHCYNNWYNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Db 241 TDHCYNNWYNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Qy 301 TRDIFTDPISLNTLQEYGPFTLSIENSIRKPHLFEDYLOCIEFFTRLQGYFGKDSFNTW 360
 Db 301 TRDIFTDPISLNTLQEYGPFTLSIENSIRKPHLFEDYLOCIEFFTRLQGYFGKDSFNTW 360
 Qy 361 SGNYVETRPSIGSSKTTSPYGDKESTEVPQKLSEFDGQKVYRITANTDAWPNGKTYLG 420
 Db 361 SGNYVETRPSIGSSKTTSPYGDKESTEVPQKLSEFDGQKVYRITANTDAWPNGKTYLG 420
 Qy 421 VTKVDFSQYDDQNETSTQYDSDKRNNNGHVAQSDIDOLQPETTDEPLEKAYSHQLYNAE 480
 Db 421 VTKVDFSQYDDQNETSTQYDSDKRNNNGHVAQSDIDOLQPETTDEPLEKAYSHQLYNAE 480
 Qy 481 CFLMDQRRTGIPPFWTHRSVDFFNTIDEK1TOLPVVYKAYALSGAS1TEGPFTGGNL 540
 Db 481 CFLMDQRRTGIPPFWTHRSVDFFNTIDEK1TOLPVVYKAYALSGAS1TEGPFTGGNL 540
 Qy 541 LFLKESSNSIAKFKVTLNSALLORYVRIRYASTTNLRLFVQNSNDELVYINKTMNK 600
 Db 541 LFLKESSNSIAKFKVTLNSALLORYVRIRYASTTNLRLFVQNSNDELVYINKTMNK 600
 Qy 601 DDDLTYQTDFLATTSNMGSFSGDKNEL1IGAESFSNEK1YDKE1FPVQL 652
 Db 601 DDDLTYQTDFLATTSNMGSFSGDKNEL1IGAESFSNEK1YDKE1FPVQL 652

RESULT 10
 US-10-614-076-44
 ; Sequence 44, Application US/10614076
 ; Publication No. US20040033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO:218-1 11792-0218.DVU501
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: US/10/614,076
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 08/993,722
 ; PRIOR FILING DATE: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 44
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-44

Query Match Score 3399; DB 15; Length 652;
 Best Local Similarity 99.8%; Pred. No. 1. Be-261;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 SEQ ID NO: 54
 LENGTH: 652
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-54

Db 61 TVKDAVGIGISWVQQLGTVGVPPAGALTSFYQSFLNTIWPSDADPKAFMAQVEVLIDK 120
 Qy 61 TVKDAVGIGISWVQQLGTVGVPPAGALTSFYQSFLNTIWPSDADPKAFMAQVEVLIDK 120
 Db 121 KIEEYAKSKALAELQGLNNFEDYNAIWSWKTPSLSLRSKRSQRIRLFSQAESHFRN 180
 Qy 121 KIEEYAKSKALAELQGLNNFEDYNAIWSWKTPSLSLRSKRSQRIRLFSQAESHFRN 180
 Db 181 SMPFAVSKFPEVLFLPTYAQANTHLLLKDAOVFGEENWGSSESDPVAEFYRQLKTOQY 240
 Qy 181 SMPFAVSKFPEVLFLPTYAQANTHLLLKDAOVFGEENWGSSESDPVAEFYRQLKTOQY 240
 Db 241 TDHCVNWVNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Qy 241 TDHCVNWVNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Db 241 TDHCVNWVNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Qy 241 TDHCVNWVNGLNRGSTDYAWKFNRFREMLTLLVLLIVLFPFYDRLYSKGVKTEL 300
 Db 301 TRDIFTDPISLNTLQEYGPFTLSIENSIRKPHLFEDYLOCIEFFTRLQGYFGKDSFNYW 360
 Qy 301 TRDIFTDPISLNTLQEYGPFTLSIENSIRKPHLFEDYLOCIEFFTRLQGYFGKDSFNYW 360
 Db 301 TRDIFTDPISLNTLQEYGPFTLSIENSIRKPHLFEDYLOCIEFFTRLQGYFGKDSFNYW 360
 Qy 361 SGNYVETRPSIGSSKTTSPYGDKESTEVPQKLSEFDGQKVYRITANTDAWPNGKTYLG 420
 Db 361 SGNYVETRPSIGSSKTTSPYGDKESTEVPQKLSEFDGQKVYRITANTDAWPNGKTYLG 420
 Qy 421 VTKVDFSQYDDQNETSTQYDSDKRNNNGHVAQSDIDOLQPETTDEPLEKAYSHQLYNAE 480
 Db 421 VTKVDFSQYDDQNETSTQYDSDKRNNNGHVAQSDIDOLQPETTDEPLEKAYSHQLYNAE 480
 Qy 481 CFLMDQRRTGIPPFWTHRSVDFFNTIDEK1TOLPVVYKAYALSGAS1TEGPFTGGNL 540
 Db 481 CFLMDQRRTGIPPFWTHRSVDFFNTIDEK1TOLPVVYKAYALSGAS1TEGPFTGGNL 540
 Qy 541 LFLKESSNSIAKFKVTLNSALLORYVRIRYASTTNLRLFVQNSNDELVYINKTMNK 600
 Db 541 LFLKESSNSIAKFKVTLNSALLORYVRIRYASTTNLRLFVQNSNDELVYINKTMNK 600
 Qy 601 DDDLTYQFDLATTNSNMGSFSGDKNEL1IGAESFSNEK1YDKE1FPVQL 652
 Db 601 DDDLTYQFDLATTNSNMGSFSGDKNEL1IGAESFSNEK1YDKE1FPVQL 652

RESULT 11
 US-10-614-076-54
 ; Sequence 54, Application US/10614076
 ; Publication No. US20040033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO:218-1 11792-0218.DVU501
 ; CURRENT APPLICATION NUMBER: US/10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: 09/427,770
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 54
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-54

Query Match Similarity 99.8%; Score 3399; DB 15; Length 652;
 Best Local Similarity 99.8%; Pred. No. 1.8e-261;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 LENGTH: 652
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-8

Query Match Similarity 99.8%; Score 3398; DB 15; Length 652;
 Best Local Similarity 99.8%; Pred. No. 2.2e-261;
 Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 LENGTH: 652
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-8

Qy 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFIRMTEDSSTEVLDNS 60
 Db 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFIRMTEDSSTEVLDNS 60
 Qy 61 TVKDAVGTGIVSGVQIIGVNVYPAGALTSSYQSPNLTIPSDADPKMAQEVLINK 120
 Db 61 TVKDAVGTGIVSGVQIIGVNVYPAGALTSSYQSPNLTIPSDADPKMAQEVLINK 120
 Qy 121 KIEEYAKSKAALAEQQLQNNFEDYNAKNSKKTPISLRSKRSQRDIREFSQASHFRN 180
 Db 121 KIEEYAKSKAALAEQQLQNNFEDYNAKNSKKTPISLRSKRSQRDIREFSQASHFRN 180
 Qy 181 SMPFAVKFEVFLFLPITYAQAAANTHLLLKDAQVFGEENGYSSEDAEEFHRLKLQQY 240
 Db 181 SMPFAVKFEVFLFLPITYAQAAANTHLLLKDAQVFGEENGYSSEDAEEFHRLKLQQY 240
 Qy 241 TDHCVNWYNGVNGLPGSTTDAAWKNREREMTITVLDLIVLFPEYDILYSSGVKTEL 300
 Db 241 TDHCVNWYNGVNGLPGSTTDAAWKNREREMTITVLDLIVLFPEYDILYSSGVKTEL 300
 Qy 301 TRDIDTPFISNTLQGYGPFTLSENSIRKPHFLPDYLOGIEFHTRLQGPYFGKDSFNTW 360
 Db 301 TRDIDTPFISNTLQGYGPFTLSENSIRKPHFLPDYLOGIEFHTRLQGPYFGKDSFNTW 360
 Qy 361 SGNYVETRPSIGSSKTITSPPYGDKSTEPPVQLSPQDQKTYTQVYKVLG 420
 Db 361 SGNYVETRPSIGSSKTITSPPYGDKSTEPPVQLSPQDQKTYTQVYKVLG 420
 Qy 421 VTKVDFSQDDQKNETSTQYDSKRNGHVSQAODSIDQLPETTDEPLEKAYSHOLNAYE 480
 Db 421 VTKVDFSQDDQKNETSTQYDSKRNGHVSQAODSIDQLPETTDEPLEKAYSHOLNAYE 480
 Qy 481 CPMQDRGTTPFETWTYRSDFFNTDAEKITOLPVKAYAASSASIEFGPGFTGGNU 540
 Db 481 CPMQDRGTTPFETWTYRSDFFNTDAEKITOLPVKAYAASSASIEFGPGFTGGNU 540
 Qy 541 LFLKESSENSIAKEFKVTLNSAALLQYRVRVYASTNLRLVQNSNDFLVYINKTMNK 600
 Db 541 LFLKESSENSIAKEFKVTLNSAALLQYRVRVYASTNLRLVQNSNDFLVYINKTMNK 600
 Qy 601 DDDLYTQFDLATTSNNGSGDKNELIJIGAESFSNEKIYIDKIEFIPYQOL 652
 Db 601 DDDLYTQFDLATTSNNGSGDKNELIJIGAESFSNEKIYIDKIEFIPYQOL 652
 RESULT 12
 US-10-614-076-8
 Sequence 8, Application US/10614076
 Publication No. US/004003352A1
 GENERAL INFORMATION:
 APPLICANT: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 FILE REFERENCE: MECO-218--1 11792.0218.DVUS01
 CURRENT FILING DATE: 2003-07-03
 PRIOR APPLICATION NUMBER: 09/1427,770
 PRIOR FILING DATE: 1999-10-27
 PRIOR APPLICATION NUMBER: 08/993,722
 NUMBER OF SEQ ID NOS: 113
 SOFTWARE: PatentIn version 3.2
 SEQ ID NO 8

RESULT 13
 US-10-614-076-26
 Sequence 26, Application US/10614076
 Publication No. US/004003352A1
 GENERAL INFORMATION:
 APPLICANT: English, Leigh H.
 APPLICANT: Bruscock, Susan M.
 APPLICANT: Malvar, Thomas M.
 APPLICANT: Bryson, James W.
 APPLICANT: Kulesza, Caroline A.
 APPLICANT: Walters, Frederick S.
 APPLICANT: Slatin, Stephen L.
 APPLICANT: Von Tersch, Michael A.
 APPLICANT: Bruscock, Susan M.
 APPLICANT: Malvar, Thomas M.
 APPLICANT: Bryson, James W.
 APPLICANT: Kulesza, Caroline A.
 APPLICANT: Walters, Frederick S.
 APPLICANT: Slatin, Stephen L.
 APPLICANT: Von Tersch, Michael A.
 TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 FILE REFERENCE: MECO-218--1 11792.0218.DVUS01
 CURRENT FILING DATE: 2003-07-03
 PRIOR APPLICATION NUMBER: 09/1427,770
 PRIOR FILING DATE: 1999-10-27
 PRIOR APPLICATION NUMBER: 08/993,722
 NUMBER OF SEQ ID NOS: 113
 SOFTWARE: PatentIn version 3.2
 SEQ ID NO 8

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Publication No. US20040033523A1	General Information:	Sequence 64, Application US/10614076
Applicant: English, Leigh H.	Applicant No. US20040033523A1	Publication No. US/10614076
Applicant: Brussock, Susan M.	General Information:	General Information:
Applicant: Malvar, Thomas M.	Applicant: English, Leigh H.	Applicant: English, Leigh H.
Applicant: Bryson, James W.	Applicant: Brussock, Susan M.	Applicant: Brussock, Susan M.
Applicant: Kulesza, Caroline A.	Applicant: Malvar, Thomas M.	Applicant: Malvar, Thomas M.
Applicant: Walters, Frederick S.	Applicant: Bryson, James W.	Applicant: Bryson, James W.
Applicant: Slatin, Stephen L.	Applicant: Kulesza, Caroline A.	Applicant: Kulesza, Caroline A.
Applicant: Von Tersch, Michael A.	Applicant: Walters, Frederick S.	Applicant: Walters, Frederick S.
Title of Invention: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS	Applicant: Slatin, Stephen L.	Applicant: Slatin, Stephen L.
FILE REFERENCE: MECO-218-1 11/92 0218.DVUS01	Applicant: Von Tersch, Michael A.	Applicant: Von Tersch, Michael A.
CURRENT APPLICATION NUMBER: US/10/614,076	TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS	TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
CURRENT FILING DATE: 2003-07-03	FILE REFERENCE: MECO-218-1 11/92 0218.DVUS01	FILE REFERENCE: MECO-218-1 11/92 0218.DVUS01
PRIOR APPLICATION NUMBER: 09/427,770	CURRENT APPLICATION NUMBER: US/10/614,076	CURRENT APPLICATION NUMBER: US/10/614,076
PRIOR FILING DATE: 1999-10-27	CURRENT FILING DATE: 2003-07-03	CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: 08/993,722	PRIOR APPLICATION NUMBER: 09/427,770	PRIOR APPLICATION NUMBER: 09/427,770
PRIOR FILING DATE: 1997-12-18	PRIOR FILING DATE: 1999-10-27	PRIOR FILING DATE: 1999-10-27
NUMBER of SEQ ID NOS: 113	PRIOR APPLICATION NUMBER: 08/993,722	PRIOR APPLICATION NUMBER: 08/993,722
SOFTWARE: PatentIn version 3.2	PRIOR FILING DATE: 1997-12-18	PRIOR FILING DATE: 1997-12-18
SEQ ID NO: 1	NUMBER of SEQ ID NOS: 113	NUMBER of SEQ ID NOS: 113
LENGTH: 652	SOFTWARE: PatentIn version 3.2	SOFTWARE: PatentIn version 3.2
TYPE: PRT	SEQ ID NO: 64	SEQ ID NO: 64
ORGANISM: Artificial sequence	LENGTH: 652	LENGTH: 652
FEATURE: Recombinant delta endotoxin	TYPE: PRT	TYPE: PRT
OTHER INFORMATION: Recombinant delta endotoxin	ORGANISM: Artificial sequence	ORGANISM: Artificial sequence
US-10-614-076-12	FEATURE: Recombinant delta endotoxin	FEATURE: Recombinant delta endotoxin
Query Match Score 99.7%; Pred. No. 3.2e-261; Length 652;	Best Local Similarity 99.5%; Pred. No. 3.2e-261; Length 652;	Best Local Similarity 99.5%; Pred. No. 3.2e-261; Length 652;
Best Local Similarity 99.4%; Mismatches 0; Indels 0; Gaps 0;	Mismatches 2; N mismatches 1; Indels 1; Gaps 0;	Mismatches 2; N mismatches 1; Indels 1; Gaps 0;
Qy 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60	Qy 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60	Qy 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60
Db 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60	Db 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60	Db 1 MNPNNRSEHDITKVTPNSELQTHNQPLADNPNSTLBEIYKEFLRMTEDSSTEVL DNS 60
Qy 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120	Qy 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120	Qy 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120
Db 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120	Db 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120	Db 61 TYKDAVGTTGIVSUGQILGVGVGFAGALTFSYQSFSLNTWPSDADPKAFMAQEVLIDK 120
Qy 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180	Qy 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180	Qy 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180	Db 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180	Db 121 KIEEYAKSKAAELAQLQGQNFFEDYVNAALNSWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
Qy 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240	Qy 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240	Qy 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240
Db 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240	Db 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240	Db 181 SMPSFAVSKEYFLPFLPYAQAAANTHLLIKDAQVFGEEMGYSSEDVAEFTYRQLKLTQY 240
Qy 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300	Qy 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300	Qy 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300
Db 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300	Db 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300	Db 241 TDHCVNVNVNGLNGRLGSTYDAWKENFRFRENTLVLDLIVLFPFYDIRLYSKGVTEL 300
Qy 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360	Qy 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360	Qy 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360
Db 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360	Db 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360	Db 301 TRDIDFTDPIFSINTLQEYGTPLSISNSRKPHFLDYLQIGBHTRLQGYFGKDSFNYW 360
Qy 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420	Qy 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420	Qy 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420
Db 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420	Db 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420	Db 361 SGNYVETRPSIGSSKTTTSPFYGDKSNEPQVQLSFDGOKYRHTIANTDVANPGKTYLG 420
Qy 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480	Qy 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480	Qy 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480
Db 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480	Db 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480	Db 421 VTKVDFSQDDQNETSTQTYDTSKRNNGHVSADSDIDLPETTDEPLEKAYSHOLNYAE 480
Qy 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540	Qy 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540	Qy 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540
Db 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540	Db 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540	Db 481 CPMODERGTLPFFTMTHRSDFENTIDAETKQLPVKAYALSSGAS1IEGPGFTCGNL 540
Qy 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600	Qy 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600	Qy 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600
Db 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600	Db 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600	Db 541 LPKEKSSNIAKFKUTLNSSAIALQYVRVRYASTTNRLFQNSNDFLVYINKTMNK 600
Qy 601 DDDLTYQTDFLATNSNMGSGDKRNELLIGAESFSNKSNEKIVYDKEFIPVQL 652	Qy 601 DDDLTYQTDFLATNSNMGSGDKRNELLIGAESFSNKSNEKIVYDKEFIPVQL 652	Qy 601 DDDLTYQTDFLATNSNMGSGDKRNELLIGAESFSNKSNEKIVYDKEFIPVQL 652

Db 481 CFLMQDRRTGIPFFTWRSVDFPNTTDAEKITQLPVVAKALSSGAS1IEGPOFTGGNL 540 Qy 421 VTKYDPSQYDQKNETSTOTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNAYE 480
 Qy 541 LFLKESSNSIAKFKVTLNSAALLORYRVRIRYASTTNLFLVQNSNNDFLVLYINKTMNK 600 Db 421 VTRVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNAYE 480
 Db 541 LFLKESSNSIAKFKVTLNSAALLORYRVRIRYASTTNLFLVQNSNNDFLVLYINKTMNK 600 Qy 481 CFLMQDRRTGIPFFTWRSVDFPNTTDAEKTOLPVVAKALSSGAS1IEGPOFTGGNL 540
 Db 481 CFLMQDRRTGIPFFTWRSVDFPNTTDAEKTOLPVVAKALSSGAS1IEGPOFTGGNL 540 Qy 541 LFLKESSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLFLVQNSNNDFLVLYINKTMNK 600
 Db 541 LFLKESSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLFLVQNSNNDFLVLYINKTMNK 600
 RESULT 17
 US-10-614-076-10
 ; Sequence 10, Application US/10614076
 ; Publication No. US20040033523A1
 GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Von Tersch, Michael A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TO COLEOPTERAN INSECTS
 FILE REFERENCE: MECCO-111792.0218.DVUS01
 CURRENT APPLICATION NUMBER: US10/614,076
 CURRENT FILING DATE: 2003-07-03
 PRIOR APPLICATION NUMBER: 09/427,770
 PRIOR FILING DATE: 1999-10-27
 PRIOR APPLICATION NUMBER: 08/993,722
 PRIOR FILING DATE: 1997-12-18
 NUMBER OF SEQ ID NOS: 113
 SOFTWARE: PatentIn Version 3.2
 SEQ ID NO 10
 LENGTH: 652
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-10
 Query Match 99.7%; Score 3395; DB 15; Length 652;
 Best Local Similarity 99.7%; Pred. No. 3.8e-261;
 Matches 650; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-34
 Db 1 MNPNRSEHDITKVTNPSELQTNHNYQPRADNPNSTLLEBLNYKEPLRTEDSSTEVLNDS 60
 Db 1 MNPNRSEHDITKVTNPSELQTNHNYQPLADNPNSTLLEBLNYKEPLRTEDSSTEVLNDS 60
 Qy 61 TVKDAVGIGISVVGQIGLGVGVPPFAGALTFSYQSFLNTIWPSDADPKMAQEVLIDK 120
 Db 61 TVKDAVGIGISVVGQIGLGVGVPPFAGALTFSYQSFLNTIWPSDADPKMAQEVLIDK 120
 Qy 121 KIEEYAKSKALAELQGLQNINFEDYNALNSWKCTPLSLRSKRSODRIBLFQSQESHRN 180
 Db 121 KIEEYAKSKALAELQGLQNINFEDYNALNSWKCTPLSLRSKRSODRIBLFQSQESHRN 180
 Qy 181 SMPSFAVKSKFEVLFLPFTYQAQANTHLLIKDAQFGEENGYSSVEDVAEYHQLKLTOQY 240
 Db 181 SMPSFAVKSKFEVLFLPFTYQAQANTHLLIKDAQFGEENGYSSVEDVAEYHQLKLTOQY 240
 Qy 241 TDHCVNWTNVGLNLGRGSTYDAWVKFNRFREMTLTVLLIVLFPFYDRLYSKGVKTEL 300
 Db 241 SDHCVNWTNVGLNLGRGSTYDAWVKFNRFREMTLTVLLIVLFPFYDRLYSKGVKTEL 300
 Qy 301 TRDIFTDPFLSNTLQEQYOPTFSTENSRKPHFDYLOGIEFATRLOGYFSKDSFNYW 360
 Db 301 TRDIFTDPFLSNTLQEQYOPTFSTENSRKPHFDYLOGIEFATRLOGYFSKDSFNYW 360
 Qy 361 SGNYVETRSPSIGSSKTTSPFYGDKSTEPVQKLSFDGQKVYRTANTDVAWNGKVYLG 420
 Db 361 SGNYVETRSPSIGSSKTTSPFYGDKSTEPVQKLSFDGQKVYRTANTDVAWNGKVYLG 420

Qy	301 TRDIFTDPISANTLQEQYGPFLSIENSIRKPHLFDFLGIEPHTRLQGYFGKDSFNYW 360	Db	181 SMPSPAVSKPEVLFPLFTYAQAANTHLLLDAQFSEWGSSEDAEFYRQLKTQY 240
Db	301 TRDIFTDPILHTLQEQYGPFLSIENSIRKPHLFDFLGIEPHTRLQGYFGKDSFNYW 360	Qy	241 TDHCYNTWYNGLNGRGSYTDWKRNFREREMTLLVLDLIVLFPFDYRLYSKGVTTEL 300
Qy	361 SGNYVTRPSIGSSKTTISPFYGDKSTBPKVLSSFDGOKYRTIANTVAWNGKYLG 420	Db	241 TDHCYNTWYNGLNGRGSYTDWKRNFREREMTLLVLDLIVLFPFDYRLYSKGVTTEL 300
Db	361 SGNYVTRPSIGSSKTTISPFYGDKSTBPKVLSSFDGOKYRTIANTVAWNGKYLG 420	Qy	241 TDRCITDPISLNLQCYGPFLSIENSIRKPHLFDFLYLOGIEFHTRLQPGYFGKDSFNYW 360
Qy	421 VTKVDFSQYDDQKNETSTOTYDSKRANCHVSAQSDIDOLPPTDEPLEKAYSHOLNAYE 480	Db	301 TRDIFTDPISLNLQCYGPFLSIENSIRKPHLFDFLYLOGIEFHTRLQPGYFGKDSFNYW 360
Db	421 VTKVDFSQYDDQKNETSTOTYDSKRANCHVSAQSDIDOLPPTDEPLEKAYSHOLNAYE 480	Qy	361 SGNYVTRPSIGSSKTTISPFYGDKESTEVKLSSFDGOKYRTIANTVAWNGKYLG 420
Qy	481 CFLMDQERGTIPFTWTHRSVDFENTIDAEKITOLPVVKAYAUSGASIEEGPGFTGONL 540	Db	301 TRDIFTDPISLNLQCYGPFLSIENSIRKPHLFDFLYLOGIEFHTRLQPGYFGKDSFNYW 360
Db	481 CFLMDQERGTIPFTWTHRSVDFENTIDAEKITOLPVVKAYAUSGASIEEGPGFTGONL 540	Qy	361 SGNYVTRPSIGSSKTTISPFYGDKESTEVKLSSFDGOKYRTIANTVAWNGKYLG 420
Qy	541 IFLKESSNSIAKFKVTLNSALLQYRVRIRYASTTNURLFVONSNNDFLVITYINKTMNK 600	Db	421 VTKVDFSQYDDQKNETSTOTYDSKRANCHVSAQSDIDOLPPTDEPLEKAYSHOLNAYE 480
Db	541 IFLKESSNSIAKFKVTLNSALLQYRVRIRYASTTNURLFVONSNNDFLVITYINKTMNK 600	Qy	481 CFLMDQERGTIPFTWTHRSVDFENTIDAEKITOLPVVKAYAUSGASIEEGPGFTGONL 540
Qy	601 DDDLTQTFDLATNSNMGSQDKNEELIGAESFSVNEKIIDKIEFIPVQL 652	Db	481 CFLMDQERGTIPFTWTHRSVDFENTIDAEKITOLPVVKAYAUSGASIEEGPGFTGONL 540
Db	601 DDDLTQTFDLATNSNMGSQDKNEELIGAESFSVNEKIIDKIEFIPVQL 652	Qy	541 IFLKESSNSIAKFKVTLNSALLQYRVRIRYASTTNURLFVONSNNDFLVITYINKTMNK 600
Db	601 DDDLTQTFDLATNSNMGSQDKNEELIGAESFSVNEKIIDKIEFIPVQL 652	Db	541 LFLXPSNSNLSAKFKVTLNSALLQYRVRIRYASTTNURLFVONSNNDFLVITYINKTMNK 600
RESULT 19			
US-10-614-076-20			
; Sequence 20, Application US/10614076			
; Publication No. US20040033523A1			
; GENERAL INFORMATION:			
; APPLICANT: English, Leigh H.			
; CURRENT APPLICATION NUMBER: US/10/614,076			
; CURRENT FILING DATE: 2003-07-03			
; PRIOR APPLICATION NUMBER: US/10/614,076			
; PRIOR FILING DATE: 2003-07-03			
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS			
; FILE REFERENCE: MECO-218--1 11792-0218.DVUS01			
; CURRENT APPLICATION NUMBER: US/10/614,076			
; CURRENT FILING DATE: 2003-07-03			
; PRIOR APPLICATION NUMBER: US/10/614,076			
; PRIOR FILING DATE: 2003-07-03			
; NUMBER OF SEQ ID NOS: 113			
; SOFTWARE: Patentin version 3.2			
; SEQ ID NO 20			
; LENGTH: 652			
; TYPE: PRT			
; ORGANISM: Artificial sequence			
; FEATURE:			
; OTHER INFORMATION: Recombinant delta endotoxin			
US-10-614-076-20			
Query Match 99.6%; Score 3393; DB 15; Length 652;			
Best Local Similarity 99.5%; Prod. No. 5.5e-261; Mismatches 1; Indels 0; Gaps 0;			
Matches 649; Conservative 2; Other Information: Recombinant delta endotoxin			
Qy	1 MNPNNRSEHDITKTPNSELDTNHNQYPLADNPNSTLLELNKTEFLRNTEDSSTEVLDS 60	Db	US-10-614-076-66
Db	1 MNPNNRSEHDITKTPNSELDTNHNQYPLADNPNSTLLELNKTEFLRNTEDSSTEVLDS 60	Qy	Query Match 99.6%; Score 3393; DB 15; Length 652;
Qy	61 TYKDAVGTGISVYQGQIYVGPAGALTSYOSFLNTIWPSPADPKAFMAQVEVLDK 120	Db	Best Local Similarity 99.7%; Prod. No. 5.5e-261; Mismatches 651; Conservative 0; Other Information: Recombinant delta endotoxin
Db	61 TYKDAVGTGISVYQIYVGPAGALTSYOSFLNTIWPSPADPKAFMAQVEVLDK 120	Qy	1 MNPNNRSEHDITKTPNSELDTNHNQYPLADNPNSTLLELNKTEFLRNTEDSSTEVLDS 60
Qy	121 KIEYAKSKALLEQLOGQNFEVDYVNAWNWKTKPLSLRSKSDRRELFSQAESHRN 180	Db	1 MNPNNRSEHDITKTPNSELDTNHNQYPLADNPNSTLLELNKTEFLRNTEDSSTEVLDS 60
Db	121 KIEYAKSKALLEQLOGQNFEVDYVNAWNWKTKPLSLRSKSDRRELFSQAESHRN 180	Qy	61 TYKDAVGTGISVYQIYVGPAGALTSYOSFLNTIWPSPADPKAFMAQVEVLDK 120
Qy	181 SMPSPAVSKPEVLFPLFTYAQAANTHLLLDAQFSEWGSSEDAEFYRQLKTQY 240	Db	181 SMPSPAVSKPEVLFPLFTYAQAANTHLLLDAQFSEWGSSEDAEFYRQLKTQY 240

Db 61 TVRDAGTCISVQILGVGVPPAGALTSPYQSLNTPWSDAPWKAFMAQEVLIDK 120
 Qy 121 KIEBEYAKSKALAELOGLONNFEDYNAWSKTKPLSRSKRSQRIFLSQAESHERN 180
 Db 121 KIEBEYAKSKALABLGLOQNFFEDYNAWSKTKPLSRSKRSQRIFLSQAESHFRN 180
 Qy 181 SMPSFAVKSFKEVLFLPTYAQAANTHLLIKDAQVGEENGYSSVEDAETYTHROKLTLQY 240
 Db 181 SMPSFAVKSFKEVLFLPTYAQAANTHLLIKDAQVGEENGYSSVEDAETYTHROKLTLQY 240
 Qy 241 TDHCVANWNVNGLNGLGSYDANKFNREREMTTLVLDLIVLPFYDIRLYSKGVKTEL 300
 Db 241 TDHCVANWNVNGLNGLGSYDANKFNREREMTTLVLDLIVLPFYDIRLYSKGVKTEL 300
 Qy 301 TRDIFTDPISLNTLQYQGPTELSIENSIRKPHLFDYLOGIEFHTRLQYFGKDSFNW 360
 Db 301 TRDIFTDPISLNTLQYQGPTELSIENSIRKPHLFDYLOGIEFHTRLQYFGKDSFNW 360
 Qy 361 SGNYVETRSPSIGSKTTSPFYGDKSTEVQQLSDGQVYRTANTDVAWPNGKVYLG 420
 Db 361 SGNYVETRSPSIGSKTTSPFYGDKSTEVQQLSDGQVYRTANTDVAWPNGKVYLG 420
 Qy 421 VTKVDFSQYDQKNETSTQYDTSKRNRNGHVSQDSDIQLPETTDEPLEKAYSHQNTAE 480
 Db 421 VTKVDFSQYDQKNETSTQYDTSKRNRNGHVSQDSDIQLPETTDEPLEKAYSHQNTAE 480
 Qy 481 CFLMQDRGTTIPFTWTHRSVDFNTTDAEKITOLPVYKAYALSSGASIEGPQFTGGNL 540
 Db 481 CFLMQDRGTTIPFTWTHRSVDFNTTDAEKITOLPVYKAYALSSGASIEGPQFTGGNL 540
 Qy 541 LFLKESSNSIAKEKVTLNSAALLQYRVYRIRYASTNNURLFVONSNNDFLVYINKTNK 600
 Db 541 LFLKESSNSIAKEKVTLNSAALLQYRVYRIRYASTNNURLFVONSNNDFLVYINKTNK 600
 Qy 601 DDDLTQFDLATNSNNGSGDKNELIGAESFSNEKYYDKIEFIPVQL 652
 Db 601 DDDLTQFDLATNSNNGSGDKNELIGAESFSNEKYYDKIEFIPVQL 652
 RESULT 21
 US-10-614-076-6
 : Sequence 6, Application US/10614 076
 ; Publication No. US20040033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Bruscock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO-218-1-11792-0218.DVUS01
 ; CURRENT APPLICATION NUMBER: US/10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: 09/427,770
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 08/993,722
 ; PRIOR FILING DATE: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 6
 ; LENGTH: 552
 ; FEATURE: ORGANISM: Artificial sequence
 ; OTHER INFORMATION: Recombinant delta endotoxin
 ; US-10-614-076-6

Query Match Score: 3392; DB: 15; Length: 652;
 Best Local Similarity: 99.6%; Pred: No. 6.7e-261;
 Matches: 650; Conservative: 0; Mismatches: 2;
 OTHER INFORMATION: Artificial sequence
 ; SEQ ID NO: 30
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; SOFTWARE: PatentIn version 3.2

; FEATURE: OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-30 ; PRIOR FILING DATE: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 60 ;
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE: OTHER INFORMATION: Recombinant delta endotoxin
 ; US-10-614-076-60
 Query Match 99.6%; Score 3392; DB 15; Length 652;
 Best Local Similarity 99.7%; Pred. No. 6.7e-261;
 Matches 650; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
 Qy 1 MNPNNREHDITIKVTPNSELQTNHNOYPLAQNPNSTLEENYKEFRLMDSSETEVLDS 60
 Db 1 MNPNNREHDITIKVTPNSELQTNHNOYPLAQNPNSTLEENYKEFRLMDSSETEVLDS 60
 Qy 61 TVKDAVGTISYGVGTVGVPAGALTSPYQSFLNTWPSDAFWKAQEVVLIDK 120
 Db 61 TVKDAVGTISYGVGTVGVPAGALTSPYQSFLNTWPSDAFWKAQEVVLIDK 120
 Db 61 KIEEYAKSKALAEQLOGQNFDYVNALNSNKTKPLSLRSRSDIRELFSQAESHFRN 180
 Qy 121 KIEEYAKSKALAEQLOGQNFDYVNALNSNKTKPLSLRSRSDIRELFSQAESHFRN 180
 Db 121 KIEEYAKSKALAEQLOGQNFDYVNALNSNKTKPLSLRSRSDIRELFSQAESHFRN 180
 Qy 181 SMPSFAVSKFEVLPLPYAQVANTHLLQAAQVFBEMGYSSEDVAEFYRQLKLTQY 240
 Db 181 SMPSFAVSKFEVLPLPYAQVANTHLLQAAQVFBEMGYSSEDVAEFYRQLKLTQY 240
 Qy 241 TDHCVNWNVNGLNGRSSTDAWKFNRFERRENTLTVLDLIVLPFPYDILYSGKVTEL 300
 Db 241 TDHCVNWNVNGLNGRSSTDAWKFNRFERRENTLTVLDLIVLPFPYDILYSGKVTEL 300
 Qy 301 TRDIFTDPFSINTLQBYGPTFLSIENISIRKPHLFDPYDLOGIEFHTRLQGPYFGKDSFNYW 360
 Db 301 TRDIFTDPFSINTLQBYGPTFLSIENISIRKPHLFDPYDLOGIEFHTRLQGPYFGKDSFNYW 360
 Qy 361 SGNYVETRPSIGSSKTITSPEYGDKSTEPVQKLSPDQKVRHTIANTDAWPNGKRYLG 420
 Db 361 SGNYVETRPSIGSSKTITSPEYGDKSTEPVQKLSPDQKVRHTIANTDAWPNGKRYLG 420
 Qy 421 VTKVDFSQDDQNETSTQYDQKRNGHVSQAQS1QLPPTTDEPLEXAYSHOLNYAE 480
 Db 421 VTKVDFSQDDQNETSTQYDQKRNGHVSQAQS1QLPPTTDEPLEXAYSHOLNYAE 480
 Qy 481 CFLMQDRRGTTIPFTWTRSVDFENTDAEKITQLPVKVAYLSSAS1IOPGFQGGNL 540
 Db 481 CFLMQDRRGTTIPFTWTRSVDFENTDAEKITQLPVKVAYLSSAS1IOPGFQGGNL 540
 Qy 541 LFLKESSNIAKVTUINSALLQYRVRYIAYSTTNLRFLYONSNNDFLYIINKTMNK 600
 Db 541 LFLKESSNIAKVTUINSALLQYRVRYIAYSTTNLRFLYONSNNDFLYIINKTMNK 600
 Qy 601 DDDITYQTPLATNSNMGPSGDKNELIIGAESFVSNEKIYDKIEFPVQL 652
 Db 601 DDDITYQTPLATNSNMGPSGDKNELIIGAESFVSNEKIYDKIEFPVQL 652
 RESULT 23
 US-10-614-076-60 ; Sequence 67, Application US/10614076
 ; Publication No. US20140033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Brussock, Susan M.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; CURRENT APPLICATION: MECCO 218--1 11/792,0218,770US01
 ; FILE REFERENCE: MECCO 218--1 11/792,0218,770
 ; CURRENT APPLICATION NUMBER: US10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: 09/427,770
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 08/393,722
 ; PRIOR APPLICATION NUMBER: 08/393,722
 ; RESULT 24
 US-10-614-076-16 ; Sequence 16, Application US/10614076
 ; Publication No. US20140033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.

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; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO-218--1 11792-0218.DVTS01
 ; CURRENT APPLICATION NUMBER: US/10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIORITY NUMBER: 09/427,770
 ; PRIORITY FILING DATE: 1999-10-27
 ; PRIORITY APPLICATION NUMBER: 08/993,722
 ; PRIORITY FILING DATE: 1997-11-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 16
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-16

	Query Match	Score	DB	Length	Length	
Qy	Best Local Similarity	99 %	15;	652;		
Qy	Matches	649;	Pred. No.	9..6-261;		
Qy	Conservative	1;	Mismatches	2;		
Qy			Indels	0;	Gaps	0
Qy	1 MNPNRSEHDTIKTPNSELOTNHNOYPLADNPNSTEELNYKEFLRMTEDSSTEVDLNS	60				
Db	1 MNPNRSEHDTIKTPNSELOTNHNOYPLADNPNSTEELNYKEFLRMTEDSSTEVDLNS	60				
Qy	61 TVKDAVGTCISVVGQILGVVGVPEAGALTSPYQSELNTIWPSDADPKAEMAQVEVLIDK	120				
Db	61 TVKDAVGTCISVVGQILGVVGVPEAGALTSPYQSELNTIWPSDADPKAEMAQVEVLIDK	120				
Qy	121 KIEEYAKSKAELQGLQNNFEDYVNLNSMKTKPPLSLRSRSQRDRRELFSQAESHFRN	180				
Db	121 KIEEYAKSKAELQGLQNNFEDYVNLNSMKTKPPLSLRSRSQRDRRELFSQAESHFRN	180				
Qy	181 SMPSFAVSKEPVLFPLTYAQANTHLLKDAQVPGEEWGSSEDVAEFYHQQLKLJQQY	240				
Db	181 SMPSFAVSKEPVLFPLTYAQANTHLLKDAQVPGEEWGSSEDVAEFYHQQLKLJQQY	240				
Qy	241 TDHCYVNWNVNGLNGLRGSTYDAWKPNFRREMTITVLDLIVLFPFYDIRLYSKGVKT	300				
Db	241 TDHCYVNWNVNGLNGLRGSTYDAWKPNFRREMTITVLDLIVLFPFYDIRLYSKGVKT	300				
Qy	301 TRDIFTDPFSLNLTQEQYGPFTPLSENSIKPHFLPDYLOGLEPHFLQPGYFGDQSPN	360				
Db	301 TRDIFTDPFSLNLTQEQYGPFTPLSENSIKPHFLPDYLOGLEPHFLQPGYFGDQSPN	360				
Qy	361 SGNYETRSPSIGSSRTITSFYGDKSTEPVQLSPDGQKVMRTIANTDVAAPNGKVYLG	420				
Db	361 SGNYETRSPSIGSSRTITSFYGDKSTEPVQLSPDGQKVMRTIANTDVAAPNGKVYLG	420				
Qy	421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVAQDSIDQLPPTTDEPLEKAYSHOLNAYE	480				
Db	421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVAQDSIDQLPPTTDEPLEKAYSHOLNAYE	480				
Qy	481 CPMQDRGRTIPTFFTWHSVDFENTIDAEKITOPVVKAYALSASITBGPFTGCGNL	540				
Db	481 CPMQDRGRTIPTFFTWHSVDFENTIDAEKITOPVVKAYALSASITBGPFTGCGNL	540				
Qy	541 LFLKESSNSIAFKVTLNSALLQYRVRYASTTNRLFVQNSNNDFLYTINCKMNK	600				
Db	541 LFLKESSNSIAFKVTLNSALLQYRVRYASTTNRLFVQNSNNDFLYTINCKMNK	600				
Qy	601 DDDLTYTQFDTLATNNNMGFSGDKNHELIIGAESFSNEKEIYDKTEFIPVQL	652				
Db	601 DDDLTYTQFDTLATNNNMGFSGDKNHELIIGAESFSNEKEIYDKTEFIPVQL	652				

Db	421	VTKVDFSQYDDQKNETSTQTYDSKRNNNGHVSQDSDIDQLPPTDEPLEKAYSHOLNVAE	480	Qy	361	SGNYVETRPSIGSSKTTISPFYGDPKSTERVQKLSDGQKVRITANTDVAAPNGKVYLG	420
Qy	481	CFLMODRGTRGTPFFWTHRSVDFFNTIDEAKITOLPVPVAKAYAASSGAS1IEGPGBTGNNI	540	Db	360	SGNYVETRPSIGSSKTTISPFGRSTERVQKLSDGQKVRITANTDVAAPNGKVYLG	419
Db	481	CFLMODRGTRGTPFFWTHRSVDFFNTIDEAKITOLPVPVAKAYAASSGAS1IEGPGBTGNNI	540	Qy	421	VTKVDFSQYDDQKNETSTOTYDSKRNNNGHVSQDSDIDQLPPTDEPLEKAYSHOLNVAE	480
Qy	541	LFLKESNSNIAKFKYTNSALLQYRYRIVASTNLFLVQNSNNDLVITYNKTKNK	600	Db	420	VTKVDFSQYDDQKNETSTOTYDSKRNNNGHVSQDSDIDQLPPTDEPLEKAYSHOLNVAE	479
Db	541	LFLKESNSNIAKFKYTNSALLQYRYRIVASTNLFLVQNSNNDLVITYNKTKNK	600	Qy	481	CFLMODRGTRGTPFTWRSVDFFNTIDEAKITOLPVKAYALSSGAS1IEGPCTGGNL	540
Qy	601	DDDLTYQTDFLATTNNSMGSGDKNEELIGAESFVSNEXIYIDKIEFIPVQL	652	Db	480	CFLMODRGTRGTPFTWRSVDFFNTIDEAKITOLPVKAYALSSGAS1IEGPCTGGNL	539
Db	601	DDDLTYQTDFLATTNNSMGSGDKNEELIGAESFVSNEXIYIDKIEFIPVQL	652	Qy	541	LFLKESNSNIAKFKYTNSALLQYRYRIVASTNLFLVQNSNNDLVITYNKTKNK	600
RESULT 28				Db	540	LFLKESNSNIAKFKYTNSALLQYRYRIVASTNLFLVQNSNNDLVITYNKTKNK	599
US-10-614-076-52		/ Sequence 52, Application US/10614076		Qy	601	DDDLTYQTDFLATTNNSMGSGDKNEELIGAESFVSNEXIYIDKIEFIPVQL	652
		/ Publication No. US20040033523A1		Db	600	DDDLTYQTDFLATTNNSMGSGDKNEELIGAESFVSNEXIYIDKIEFIPVQL	651
		/ GENERAL INFORMATION:					
		/ APPLICANT: English, Leigh H.					
		/ APPLICANT: Brussock, Susan M.					
		/ APPLICANT: Malvar, Thomas M.					
		/ APPLICANT: Bryson, James W.					
		/ APPLICANT: Kulesza, Caroline A.					
		/ APPLICANT: Walters, Frederick S.					
		/ APPLICANT: Slatin, Stephen L.					
		/ APPLICANT: Von Tersch, Michael A.					
		/ TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS					
		/ FILE REFERENCE: MECO-218--1 11792-0218 DVUS01					
		/ CURRENT APPLICATION NUMBER: US/10/614,076					
		/ CURRENT FILING DATE: 2003-07-03					
		/ PRIOR APPLICATION NUMBER: 09/127,770					
		/ PRIOR FILING DATE: 1999-10-27					
		/ PRIOR APPLICATION NUMBER: 08/993,722					
		/ PRIOR FILING DATE: 1997-12-18					
		/ NUMBER OF SEQ ID NOS: 113					
		/ SOFTWARE: PatentIn version 3.2					
		/ SEQ ID NO: 52					
		/ LENGTH: 651					
		/ TYPE: PRT					
		/ ORGANISM: Artificial sequence					
		/ FEATURE:					
		/ OTHER INFORMATION: Recombinant delta endotoxin					
US-10-614-076-52							
		Query Match 99.5%; Score 3387.5; DB 15; Length 651;					
		Best Local Similarity 99.7%; Pred. No. 1.5e-260;					
		Matches 650; Conservative 1; Mismatches 0; Indels 1; Gaps 1;					
Qy	1	MNPNNRSEIDITKVTNSLQTNENQPIADNPNSTLPLNKEFLRMTEDSSTEVLNDS	60	Db	1	MNPNNRSPHDITKVTNSLQTNENQPIADNPNSTLPLNKEFLRMTEDSSTEVLNDS	60
Db	1	MNPNNRSEIDITKVTNSLQTNENQPIADNPNSTLPLNKEFLRMTEDSSTEVLNDS	60	Db	1	MNPNNRSPHDITKVTNSLQTNENQPIADNPNSTLPLNKEFLRMTEDSSTEVLNDS	60
Qy	61	TVKDAVGTRGTSVWVQIIGVPPAGALTFSYOSFLNTWPSADPKAFMAQEVLIDK	120	Qy	61	TVKDAVGTRGTSVWVQIIGVPPAGALTFSYOSFLNTWPSADPKAFMAQEVLIDK	120
Db	61	TVKDAVGTRGTSVWVQIIGVPPAGALTFSYOSFLNTWPSADPKAFMAQEVLIDK	119	Db	61	TVKDAVGTRGTSVWVQIIGVPPAGALTFSYOSFLNTWPSADPKAFMAQEVLIDK	120
Qy	121	KIEBEYAKSKALAELQGLQNLNFEDYNALSWKCTPLSLRSKRSQDRIRELFLQAEASHPRN	180	Qy	121	KIEBEYAKSKALAELQGLQNLNFEDYNALSWKCTPLSLRSKRSQDRIRELFLQAEASHPRN	180
Db	120	KIEBEYAKSKALAELQGLQNLNFEDYNALSWKCTPLSLRSKRSQDRIRELFLQAEASHPRN	179	Db	120	KIEBEYAKSKALAELQGLQNLNFEDYNALSWKCTPLSLRSKRSQDRIRELFLQAEASHPRN	179
Qy	181	SMPSPAVSKFEVLFLPFTYQAANTHLLIIKDAQVGEENGYSSVEDVAFYHROLKLTOQY	240	Qy	181	SMPSPAVSKFEVLFLPFTYQAANTHLLIIKDAQVGEENGYSSVEDVAFYHROLKLTOQY	239
Db	180	SMPSPAVSKFEVLFLPFTYQAANTHLLIIKDAQVGEENGYSSVEDVAFYHROLKLTOQY	239	Db	180	SMPSPAVSKFEVLFLPFTYQAANTHLLIIKDAQVGEENGYSSVEDVAFYHROLKLTOQY	239
Qy	241	TDHCVNWYNGLNGLRGSTYDANKTFNRPREMTLVLDLIVLFPFDILRYSKGKVTEL	300	Qy	241	TDHCVNWYNGLNGLRGSTYDANKTFNRPREMTLVLDLIVLFPFDILRYSKGKVTEL	300
Db	240	TDHCVNWYNGLNGLRGSTYDANKTFNRPREMTLVLDLIVLFPFDILRYSKGKVTEL	299	Db	240	TDHCVNWYNGLNGLRGSTYDANKTFNRPREMTLVLDLIVLFPFDILRYSKGKVTEL	299
Qy	301	TRDIFTDPISLNTLQEQCPTPLSIENSIRKPHLFYLOGIEFHTRLOGYFGKDSFNYW	360	Qy	301	TRDIFTDPISLNTLQEQCPTPLSIENSIRKPHLFYLOGIEFHTRLOGYFGKDSFNYW	359
Db	300	TRDIFTDPISLNTLQEQCPTPLSIENSIRKPHLFYLOGIEFHTRLOGYFGKDSFNYW	359	Db	300	TRDIFTDPISLNTLQEQCPTPLSIENSIRKPHLFYLOGIEFHTRLOGYFGKDSFNYW	359

Db	1	MNPNNRSEHDTIKTPNSELQTNANQYPLADNPNSTLLEBLINYKEPLRMEDSSTEVLNDS	60	
Qy	61	TVKDAVGTSVYQGQILGVGVPPAGALTSPYQFLNTIWP\$DADPWAQEVILDK	120	Query Match 99.3%; Score 3382; DB 15; Length 652;
Db	61	TVKDAVGTSVYQGQILGVGVPPAGALTSPYQFLNTIWP\$DADPWAQEVILDK	120	Best Local Similarity 99.4%; Pred. No. 4.2e-260;
Qy	121	KIEEYAKSKALAELQGLQNPEDTYNALSWKCKTPLSLASKRSODRTEPLSAE\$HFRN	180	Matches 648; Conservative 1; Mismatches 3; Index 0; Gaps 0;
Db	121	KIEEYAKSKALAELQGLQNPEDTYNALSWKCKTPLSLASKRSODRTEPLSAE\$HFRN	180	
Qy	181	SMP\$AVSKPEBVLFPLTPYQAANTHLLKDAQVGEENGYSSDVAEYHRQLKTOQY	240	Qy 1 MNPNRSEHDTIKTPNSELQTNHNNQYPLADNPNSTLLEBLINYKEPLRMEDSSTEVLNDS 60
Db	181	SMP\$AVSKPEBVLFPLTPYQAANTHLLKDAQVGEENGYSSDVAEYHRQLKTOQY	240	Db 1 MNPNRSEHDTIKTPNSELQTNHNNQYPLADNPNSTLLEBLINYKEPLRMEDSSTEVLNDS 60
Qy	241	TDHCVNWVNGLNGLRGSTYDAWYKFNRRMELTLLIVLQFSDGSPYTW	300	Qy 61 TVKDAVGTSVYQGQILGVGVPPAGALTSPYQFLNTIWP\$DADPWAQEVILDK 120
Db	241	TDHCVNWVNGLNGLRGSTYDAWYKFNRRMELTLLIVLQFSDGSPYTW	300	Db 61 TVKDAVGTSVYQGQILGVGVPPAGALTSPYQFLNTIWP\$DADPWAQEVILDK 120
Qy	301	TRDIFTDPISLNTLQEYGPTEFLSTENSTRKPHFLDYLOGIEFPTRLQGYFSKDSFNW	360	Qy 181 SMP\$AVSKPEBVLFPLTPYQAANTHLLKDAQVGEENGYSSDVAEYHRQLKTOQY 240
Db	301	TRDIFTDPISLNTLQEYGPTEFLSTENSTRKPHFLDYLOGIEFPTRLQGYFSKDSFNW	360	Db 181 SMP\$AVSKPEBVLFPLTPYQAANTHLLKDAQVGEENGYSSDVAEYHRQLKTOQY 240
Qy	361	SGNYVETRPSIGSSKTTSPYGDKSTEPVKLSFDGKVYRINTDAWPNKGTYLG	420	Qy 241 TDHCVNWVNGLNGLRGSTYDAWYKFNRRMELTLLIVLQFSDGSPYTW
Db	361	SGNYVETRPSIGSSKTTSPYGDKSTEPVKLSFDGKVYRINTDAWPNKGTYLG	420	Db 241 TDHCVNWVNGLNGLRGSTYDAWYKFNRRMELTLLIVLQFSDGSPYTW
Qy	421	VTKYDFSQDDQNETSTOTYDSKRNNGHVSAQSDIDOLPPTTDEPLEKAYSHOLNAYE	480	Qy 301 TRDIFTDPISLNTLQEYGPTEFLSTENSTRKPHFLDYLOGIEFPTRLQGYFSKDSFNW
Db	421	VTKYDFSQDDQNETSTOTYDSKRNNGHVSAQSDIDOLPPTTDEPLEKAYSHOLNAYE	480	Db 301 TRDIFTDPISLNTLQEYGPTEFLSTENSTRKPHFLDYLOGIEFPTRLQGYFSKDSFNW
Qy	481	CFLMQDRRTGTIPFTWTHRSVDFNTIDEAKITOLPVYKAYALSSGASIEGPGFTGNNL	540	Qy 361 SGNYVETRPSIGSSKTTSPYGDKSTEPVKLSFDGKVYRINTDAWPNKGTYLG
Db	481	CFLMQDRRTGTIPFTWTHRSVDFNTIDEAKITOLPVYKAYALSSGASIEGPGFTGNNL	540	Db 361 SGNYVETRPSIGSSKTTSPYGDKSTEPVKLSFDGKVYRINTDAWPNKGTYLG
Qy	541	LFLKESSNSIAKFVTLN\$AALLQRYRIVYASTTNLRLFVONSNNDFLVINKTMNK	600	Qy 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSAQSDIDOLPPTTDEPLEKAYSHOLNAYE
Db	541	LFLKESSNSIAKFVTLN\$AALLQRYRIVYASTTNLRLFVONSNNDFLVINKTMNK	600	Db 421 VTKYDFSQDDQNETSTOTYDSKRNNGHVSAQSDIDOLPPTTDEPLEKAYSHOLNAYE
Qy	601	DDDLTYQTDFLATINSNMGFSGDKNELI1GAESFVSNEKIVIDKIEFIPVQL	652	Qy 481 CFLMQDRRTGTIPFTWTHRSVDFNTIDEAKITOLPVYKAYALSSGASIEGPGFTGNNL
Db	601	DDDLTYQTDFLATINSNMGFSGDKNELI1GAESFVSNEKIVIDKIEFIPVQL	652	Db 481 CFLMQDRRTGTIPFTWTHRSVDFNTIDEAKITOLPVYKAYALSSGASIEGPGFTGNNL
<hr/>				
RESULT	32	RESULT 33	US-10-614-076-36	US-10-614-076-36
			Sequence 36, Application US/10614076	Sequence 36, Application US/10614076
			Publication No. US20040033523A1	Publication No. US20040033523A1
			GENERAL INFORMATION:	GENERAL INFORMATION:
			APPLICANT: English, Leigh H.	APPLICANT: English, Leigh H.
			APPLICANT: Bruscock, Susan M.	APPLICANT: Bruscock, Susan M.
			APPLICANT: Malvar, Thomas M.	APPLICANT: Malvar, Thomas M.
			APPLICANT: Bryson, James W.	APPLICANT: Bryson, James W.
			APPLICANT: Kulesza, Caroline A.	APPLICANT: Kulesza, Caroline A.
			APPLICANT: Walters, Frederick S.	APPLICANT: Walters, Frederick S.
			APPLICANT: Slatkin, Stephen L.	APPLICANT: Slatkin, Stephen L.
			APPLICANT: Von Tersch, Michael A.	APPLICANT: Von Tersch, Michael A.
			TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TO COLEOPTERAN INSECTS	TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TO COLEOPTERAN INSECTS
			FILE REFERENCE: MECC:218--1 11792_0218 DVUS01	FILE REFERENCE: MECC:218--1 11792_0218 DVUS01
			CURRENT APPLICATION NUMBER: US/10/614,076	CURRENT APPLICATION NUMBER: US/10/614,076
			PRIOR APPLICATION NUMBER: 2003-07-03	PRIOR APPLICATION NUMBER: 2003-07-03
			PRIOR FILING DATE: 1999-10-27	PRIOR FILING DATE: 1999-10-27
			PRIOR APPLICATION NUMBER: 09/427,770	PRIOR APPLICATION NUMBER: 09/427,770
			SEQ ID NO: 22	SEQ ID NO: 22
			LENGTH: 652	LENGTH: 652
			TYPE: PRT	TYPE: PRT
			ORGANISM: Artificial sequence	ORGANISM: Artificial sequence
			FEATURE: Recombinant delta endotoxin	FEATURE: Recombinant delta endotoxin
			US-10-614-076-22	US-10-614-076-22

; SEQ ID NO 36
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 us-10-614-076-36

Query Match 99.2%; Score 3380; DB 15; Length 652;
 Best Local Similarity 99.4%; Pred. No. 6e-260; Indels 0; Gaps 0;
 Matches 648; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTEDSSTEVLDS 60
 Db 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTEDSSTEVLDS 60
 Db 61 TVKDAVGTGIVSYGQIIGVGVPPAGALTSPYQSFNLTINPSDADPKWMAQEVLDK 120
 Db 61 TVKDAVGTGIVSYGQIIGVGVPPAGALTSPYQSFNLTINPSDADPKWMAQEVLDK 120

Qy 1 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Db 121 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Qy 181 SMPSFAYSKEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240
 Db 181 SMPSFAYSKEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240

Qy 241 TDHCVNWVNGVGLRGSTYDAWKENRFRREMTLTVDLIVLFPFYDILYSSKGVKTEL 300
 Db 241 TDHCVNWVNGVGLRGSTYDAWKENRFRREMTLTVDLIVLFPFYDILYSSKGVKTEL 300

Qy 301 TRDIFTDFISNTLQEGPTLISIENSIRKPHFDYLOCTIEFHITPLQGYFGKOSFNYN 360
 Db 301 TRDIFTDFISNTLQEGPTLISIENSIRKPHFDYLOCTIEFHITPLQGYFGKOSFNYN 360

Qy 361 SGNYVETRPSIGSKTITSPTFYGDKSSTEPVQKLFSFGQKVXTIANTDAMPNGKVYLG 420
 Db 361 SGNYVETRPSIGSKTITSPTFYGDKSSTEPVQKLFSFGQKVXTIANTDAMPNGKVYLG 420

Qy 421 VTKVDFSDQDDQNETSCTOYDSKRNGHVSADSIOLPPTTDEPLEKAYSHQLYNAE 480
 Db 421 VTKVDFSDQDDQNETSCTOYDSKRNGHVSADSIOLPPTTDEPLEKAYSHQLYNAE 480

Qy 481 CEMODRGTIPETWTHSYDENTDAEKTLTOLPVVKAYALSSGASITIEPGFTCGNL 540
 Db 481 CFLMQDRRTIPETWTHSYDENTDAEKTLTOLPVVKAYALSSGASITIEPGFTCGNL 540

Qy 541 LFLKESSNSIAKFKVTNSAALLQRYRVRIRYASTNRLFYONSNNDFLTYINKTMNK 600
 Db 541 LFLKESSNSIAKFKVTNSAALLQRYRVRIRYASTNRLFYONSNNDFLTYINKTMNK 600

Qy 601 DDDLTYQTFDLATNSNGSGDKNEELIGAESFSNEKJYDKIEFTPVQL 652
 Db 601 DDDLTYQTFDLATNSNGSGDKNEELIGAESFSNEKJYDKIEFTPVQL 652

RESULT 34
 US-10-614-076-38
 ; Sequence 38, Application US/10614076
 ; Publication No. US20040033523A1.
 ; GENERAL INFORMATION:
 ; APPLICANT: Von Tersch, Michael A.
 ; APPLICANT: Brussoch, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussoch, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.

; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: 09/427,770
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 08/993,722
 ; PRIOR FILING DATE: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 SEQ ID NO 38
 LENGTH: 652
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 us-10-614-076-38

Query Match 99.2%; Score 3380; DB 15; Length 652;
 Best Local Similarity 99.4%; Pred. No. 6e-260; Indels 0; Gaps 0;
 Matches 648; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTEDSSTEVLDS 60
 Db 1 MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTEDSSTEVLDS 60
 Db 61 TVKDAVGTGIVSYGQIIGVGVPPAGALTSPYQSFNLTIPSDADPKWMAQEVLDK 120
 Qy 61 TVKDAVGTGIVSYGQIIGVGVPPAGALTSPYQSFNLTIPSDADPKWMAQEVLDK 120

Qy 121 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Db 121 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Qy 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240
 Db 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240

Qy 121 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Db 121 KIEEYAKSKAALQALELQLQINPFDYVNLNSWKTPSLRSRSQDIREFSQAESHRN 180
 Qy 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240
 Db 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240

Qy 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240
 Db 181 SMPSPAVSKPEVLFPLTYAQAANTHLLKLDAQVFGEEMGYSSEDVAEFPYRQLKTOQY 240

Qy 241 TDHCVNWVNGVGLRGSTYDAWKENRFRREMTLTVDLIVLFPFYDILYSSKGVKTEL 300
 Db 241 TDHCVNWVNGVGLRGSTYDAWKENRFRREMTLTVDLIVLFPFYDILYSSKGVKTEL 300

Qy 301 TRDIFTDFISNTLQEGPTLISIENSIRKPHFDYLOCTIEFHITPLQGYFGKOSFNYN 360
 Db 301 TRDIFTDFISNTLQEGPTLISIENSIRKPHFDYLOCTIEFHITPLQGYFGKOSFNYN 360

Qy 361 SGNYVETRPSIGSKTITSPTFYGDKSSTEPVQKLFSFGQKVXTIANTDAMPNGKVYLG 420
 Db 361 SGNYVETRPSIGSKTITSPTFYGDKSSTEPVQKLFSFGQKVXTIANTDAMPNGKVYLG 420

Qy 421 VTKVDFSDQDDQNETSCTOYDSKRNGHVSADSIOLPPTTDEPLEKAYSHQLYNAE 480
 Db 421 VTKVDFSDQDDQNETSCTOYDSKRNGHVSADSIOLPPTTDEPLEKAYSHQLYNAE 480

Qy 481 CEMODRGTIPETWTHSYDENTDAEKTLTOLPVVKAYALSSGASITIEPGFTCGNL 540
 Db 481 CFLMQDRRTIPETWTHSYDENTDAEKTLTOLPVVKAYALSSGASITIEPGFTCGNL 540

Qy 541 LFLKESSNSIAKFKVTNSAALLQRYRVRIRYASTNRLFYONSNNDFLTYINKTMNK 600
 Db 541 LFLKESSNSIAKFKVTNSAALLQRYRVRIRYASTNRLFYONSNNDFLTYINKTMNK 600

Qy 601 DDDLTYQTFDLATNSNGSGDKNEELIGAESFSNEKJYDKIEFTPVQL 652
 Db 601 DDDLTYQTFDLATNSNGSGDKNEELIGAESFSNEKJYDKIEFTPVQL 652

RESULT 35
 US-10-614-076-50
 ; Sequence 50, Application US/10614076
 ; Publication No. US20040033523A1
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussoch, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussoch, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.

APPLICANT: Kulesza, Caroline A.
 APPLICANT: Walters, Frederick S.
 APPLICANT: Slatin, Stephen L.
 APPLICANT: Von Tersch, Michael A.
 TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 FILE REFERENCE: MECO-218--1 11792-0218.DVUS01
 CURRENT APPLICATION NUMBER: US10/614,076
 CURRENT FILING DATE: 2003-07-03
 PRIOR APPLICATION NUMBER: 09/427,770
 PRIOR FILING DATE: 1999-10-27
 PRIOR APPLICATION NUMBER: 08/993,722
 PRIOR FILING DATE: 1997-12-18
 NUMBER OF SEQ ID NOS: 113
 SOFTWARE: PatentIn version 3.2
 SEQ ID NO: 50
 LENGTH: 632
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-50

Query Match 99.2%; Score 3379; DB 15; Length 652;
 Best Local Similarity 99.1%; Pred. No. 7.2e-260;
 Matches 616; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MNPNRNRSEHTIKTPNSLQTNINQYPADNPNSTLRLNCKEFLRMTEDSSTEVLNDS 60
 Db 1 MNPNRNRSEHTIKTPNSLQTNINQYPADNPNSTLRLNCKEFLRMTEDSSTEVLNDS 60
 Qy 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Db 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Qy 121 KIEBYAKSKALAELOGQNFDYTNALNWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
 Db 121 KIEBYAKSKALAELOGQNFDYTNALNWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
 Qy 181 SMPSFAVSKEFVLPLPTYQAANTHLLIKDAQVGEENGYSSEDVAFFYHROLKLHQY 240
 Db 181 SMPSFAVSKEFVLPLPTYQAANTHLLIKDAQVGEENGYSSEDVAFFYHROLKLHQY 240
 Qy 241 TDHCVNWNVGLNLRGSTYDANVKFNRFRENTLTVIDLIVLFPFYDRLYSKGKVTEL 300
 Db 241 TDHCVNWNVGLNLRGSTYDANVKFNRFRENTLTVIDLIVLFPFYDRLYSKGKVTEL 300
 Qy 301 TRDIFTDPFISLNTLQEQYGPFTLSIENSIRKPHLFYDLYQGIEFHTRLQGPYFGKDSFNYW 360
 Db 301 TRDIFTDPFISLNTLQEQYGPFTLSIENSIRKPHLFYDLYQGIEFHTRLQGPYFGKDSFNYW 360
 Qy 361 SGNYVETRSIGSSKTTIPFYGDKSTEVQKLSFDGOKVYRTIANTDVAANGKTYLG 420
 Db 361 SGNYVETRSIGSSKTTIPFYGDKSTEVQKLSFDGOKVYRTIANTDVAANGKTYLG 420
 Qy 421 VTKYDFSQYDDQNETSTOTYDSKRNGHIVSAQDSIDQLPETTDEPLEKAYSHQLNAYA 480
 Db 421 VTKYDFSQYDDQNETSTOTYDSKRNGHIVSAQDSIDQLPETTDEPLEKAYSHQLNAYA 480
 Qy 481 CFLMQDRRTSIPPFTWHSVPDENTIDAEKITOLPVYKAYAASSGASIEPGFTGQNL 540
 Db 481 CFLMQDRRTSIPPFTWHSVPDENTIDAEKITOLPVYKAYAASSGASIEPGFTGQNL 540
 Qy 541 LPKEKSSNIAKFKVTLNSAALLQRYRIVRASTTNRFLVNSNNDFLVYINKTMNK 600
 Db 541 LPKEKSSNIAKFKVTLNSAALLQRYRIVRASTTNRFLVNSNNDFLVYINKTMNK 600
 Qy 601 DDDITYQTFLATTNSNNGFSGDKNELITGAESFSNEKUYIDKIEFIPVQL 652
 Db 601 DDDITYQTFLATTNSNNGFSGDKNELITGAESFSNEKUYIDKIEFIPVQL 652

; Sequence 2, Application US/10614076
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Bruscock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECO-218--1 11792-0218.DVUS01
 ; CURRENT APPLICATION NUMBER: US10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIORITY INFORMATION: Recombinant delta endotoxin
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 2
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 ; US-10-614-076-2

Query Match 99.1%; Score 3377; DB 15; Length 652;
 Best Local Similarity 99.4%; Pred. No. 1e-259;
 Matches 648; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MNPNRNRSEHTIKTPNSLQTNINQYPADNPNSTLRLNCKEFLRMTEDSSTEVLNDS 60
 Db 1 MNPNRNRSEHTIKTPNSLQTNINQYPADNPNSTLRLNCKEFLRMTEDSSTEVLNDS 60
 Qy 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Db 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Qy 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Db 61 TVDAVGTSISVQGILGVGVPPAGALTSTFYQSFLNTWPSDAPKMAQEVEVLDK 120
 Qy 121 KIEYAKSKALAELOGQNFDYTNALNWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
 Db 121 KIEYAKSKALAELOGQNFDYTNALNWKCTPLSLRSKRSQDRIRELFSQAESHFRN 180
 Qy 181 SMPSFAVSKEFVLPLPTYQAANTHLLIKDAQVGEENGYSSEDVAFFYHROLKLHQY 240
 Db 181 SMPSFAVSKEFVLPLPTYQAANTHLLIKDAQVGEENGYSSEDVAFFYHROLKLHQY 240
 Qy 241 TDHCVNWNVGLNLRGSTYDANVKFNRFRENTLTVIDLIVLFPFYDRLYSKGKVTEL 300
 Db 241 TDHCVNWNVGLNLRGSTYDANVKFNRFRENTLTVIDLIVLFPFYDRLYSKGKVTEL 300
 Qy 301 TRDIFTDPFISLNTLQEQYGPFTLSIENSIRKPHLFYDLYQGIEFHTRLQGPYFGKDSFNYW 360
 Db 301 TRDIFTDPFISLNTLQEQYGPFTLSIENSIRKPHLFYDLYQGIEFHTRLQGPYFGKDSFNYW 360
 Qy 361 SGNYVETRSIGSSKTTIPFYGDKSTEVQKLSFDGOKVYRTIANTDVAANGKTYLG 420
 Db 361 SGNYVETRSIGSSKTTIPFYGDKSTEVQKLSFDGOKVYRTIANTDVAANGKTYLG 420
 Qy 421 VTKYDFSQYDDQNETSTOTYDSKRNGHIVSAQDSIDQLPETTDEPLEKAYSHQLNAYA 480
 Db 421 VTKYDFSQYDDQNETSTOTYDSKRNGHIVSAQDSIDQLPETTDEPLEKAYSHQLNAYA 480
 Qy 481 CFLMQDRRTSIPPFTWHSVPDENTIDAEKITOLPVYKAYAASSGASIEPGFTGQNL 540
 Db 481 CFLMQDRRTSIPPFTWHSVPDENTIDAEKITOLPVYKAYAASSGASIEPGFTGQNL 540
 Qy 541 LPKEKSSNIAKFKVTLNSAALLQRYRIVRASTTNRFLVNSNNDFLVYINKTMNK 600
 Db 541 LPKEKSSNIAKFKVTLNSAALLQRYRIVRASTTNRFLVNSNNDFLVYINKTMNK 600
 Qy 601 DDDITYQTFLATTNSNNGFSGDKNELITGAESFSNEKUYIDKIEFIPVQL 652
 Db 601 DDDITYQTFLATTNSNNGFSGDKNELITGAESFSNEKUYIDKIEFIPVQL 652

RESULT 37
 Sequence 8, Application US/10232665
 Publication No. US20030115630A1
 GENERAL INFORMATION:
 APPLICANT: Romano, Charles P.
 TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
 CURRENT APPLICATION NUMBER: US/10/232,665
 CURRENT FILING DATE: 2002-08-29
 PRIOR APPLICATION NUMBER: US/10/232,665
 CURRENT FILING DATE: 2002-08-29
 PRIOR APPLICATION NUMBER: US/09/377,466
 NUMBER OF SEQ ID NOS: 43
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 8
 LENGTH: 653
 TYPE: PRT
 ORGANISM: Artificial Sequence
 FEATURE:
 OTHER INFORMATION: Description of Artificial Sequence: non-naturally occurring amino acid sequence encoded by SEQ ID NO:1
 NAME/KEY: PRT
 LOCATION: (1)..(653)
 OTHER INFORMATION: amino acid sequence for Cry3Bb variant v11231 encoded by SEQ ID N
 us-10-232-665-8

Query Match 99.1%; Score 3377; DB 14; Length 653;
 Best Local Similarity 99.4%; Pred. No. 1e-259; Indels 0; Gaps 0;
 Matches 647; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy	2	NPNNSEHDITKVTNPNSLQTQNHOQYDADNPNSTBLEBLNKYKEPLMTEDSSTEVLNDST	61	Query Match 99.1%; Score 3377; DB 14; Length 653; Best Local Similarity 99.4%; Pred. No. 1e-259; Indels 0; Gaps 0; Matches 647; Conservative 1; Mismatches 3; Indels 0; Gaps 0;
Db	3	NPNNSEHDITKVTNPNSLQTQNHOQYDADNPNSTBLEBLNKYKEPLMTEDSSTEVLNDST	62	2 NPNNSEHDITKVTNPNSLQTQNHOQYDADNPNSTBLEBLNKYKEPLMTEDSSTEVLNDST 61
Qy	62	VKDAVGTGTSVQIQLGVYGVPPAGALTSTYOSFLNTIWPSPADPKAFMAQVEVLIDKK	121	3 NPNNSEHDITKVTNPNSLQTQNHOQYDADNPNSTBLEBLNKYKEPLMTEDSSTEVLNDST 62
Db	63	VKDAVGTGTSVQIQLGVYGVPPAGALTSTYOSFLNTIWPSPADPKAFMAQVEVLIDKK	122	62 VKDAVGTGTSVQIQLGVYGVPPAGALTSTYOSFLNTIWPSPADPKAFMAQVEVLIDKK 121
Qy	122	IEEYAKSKALAEQGLQNLNFEDYVNAWSKTPSLRSKRSQDRTRELFSAEHSFRNS	181	63 VKDAVGTGTSVQIQLGVYGVPPAGALTSTYOSFLNTIWPSPADPKAFMAQVEVLIDKK 122
Db	123	IEEYAKSKALAEQGLQNLNFEDYVNAWSKTPSLRSKRSQDRTRELFSAEHSFRNS	182	Qy 122 IEEYAKSKALAEQGLQNLNFEDYVNAWSKTPSLRSKRSQDRTRELFSAEHSFRNS 181
Qy	182	MPSFAVSKEVLELPYTAQANTHLLIKDAQYFGEENGYSSEDVAFFYRQLKLTQQYT	241	Db 123 IEEYAKSKALAEQGLQNLNFEDYVNAWSKTPSLRSKRSQDRTRELFSAEHSFRNS 182
Db	183	MPSFAVSKEVLELPYTAQANTHLLIKDAQYFGEENGYSSEDVAFFYRQLKLTQQYT	242	Qy 182 MPSFAVSKEVLELPYTAQANTHLLIKDAQYFGEENGYSSEDVAFFYRQLKLTQQYT 241
Qy	242	DHCVNWNVNGLNGLRGSTYDAWKENRFREMTLTVLDLVLFPFDIYLTKYGTFS	301	Db 183 MPSFAVSKEVLELPYTAQANTHLLIKDAQYFGEENGYSSEDVAFFYRQLKLTQQYT 242
Db	243	DHCVNWNVNGLNGLRGSTYDAWKENRFREMTLTVLDLVLFPFDIYLTKYGTFS	302	Qy 242 DHCVNWNVNGLNGLRGSTYDAWKENRFREMTLTVLDLVLFPFDIYLTKYGTFS 301
Qy	302	RDIETDPFLSLNTLQEQYGTTELSENSKRPHLFDTYLOGIEFHTRLQGYFGKDSFNYWS	361	Db 243 DHCVNWNVNGLNGLRGSTYDAWKENRFREMTLTVLDLVLFPFDIYLTKYGTFS 302
Db	303	RDIETDPFLSLNTLQEQYGTTELSENSKRPHLFDTYLOGIEFHTRLQGYFGKDSFNYWS	362	Qy 302 RDIETDPFLSLNTLQEQYGTTELSENSKRPHLFDTYLOGIEFHTRLQGYFGKDSFNYWS 361
Qy	362	GNYVETRPPIGSSTKTISPRYGDKSTPEVKLSDGQKVYRTANTDVAWPNKGKVYLG	421	Db 303 RDIETDPFLSLNTLQEQYGTTELSENSKRPHLFDTYLOGIEFHTRLQGYFGKDSFNYWS 362
Db	363	GNYVETRPPIGSSTKTISPRYGDKSTPEVKLSDGQKVYRTANTDVAWPNKGKVYLG	422	Qy 362 GNYVETRPPIGSSTKTISPRYGDKSTPEVKLSDGQKVYRTANTDVAWPNKGKVYLG 421
Qy	422	TKVDFSYQDDQNETSTQYDSKRNGHSAQDSDIDQLPETTDEPLEKAYSHOLNAYAC	481	Db 363 GNYVETRPPIGSSTKTISPRYGDKSTPEVKLSDGQKVYRTANTDVAWPNKGKVYLG 421
Db	423	TKVDFSYQDDQNETSTQYDSKRNGHSAQDSDIDQLPETTDEPLEKAYSHOLNAYAC	482	Qy 422 TKVDFSYQDDQNETSTQYDSKRNGHSAQDSDIDQLPETTDEPLEKAYSHOLNAYAC 481
Qy	482	FLMDQRRTGTTFFTMTHRSDFFNTIDAKitQLPVVKAYALSSGASLIEGPFTGNL	541	Db 423 TKVDFSYQDDQNETSTQYDSKRNGHSAQDSDIDQLPETTDEPLEKAYSHOLNAYAC 482
Db	483	FLMDQRRTGTTFFTMTHRSDFFNTIDAKitQLPVVKAYALSSGASLIEGPFTGNL	542	Qy 482 FLMDQRRTGTTFFTMTHRSDFFNTIDAKitQLPVVKAYALSSGASLIEGPFTGNL 541
Qy	542	FLKESSNSIAKFVTLNSALLQRYRVRVRASTTNRLFVQNSNNDFLVYINKTNKND	601	Db 483 FLMDQRRTGTTFFTMTHRSDFFNTIDAKitQLPVVKAYALSSGASLIEGPFTGNL 542

Qy 542 FLKESNSIAKFKVTLNSALLQYRVRVRYASTTNLRFLVQNSNNDFLVIVINKTMKD 601
 Db 543 FLKESNSIAKFKVTLNSALLQYRVRVRYASTTNLRFLVQNSNNDFLVIVINKTMKD 602

Qy 602 DDLTYQTFLATLNSNMGSGDKNEELIIGAESFSNEKYYIDKIEFIPVQL 652
 Db 603 DDLTYQTFLATLNSNMGSGDKNEELIIGAESFSNEKYYIDKIEFIPVQL 653

RESULT 39
 US-10-232-665-16
 ; Sequence 16, Application US/10232665
 ; Publication No. US20030115630A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-1(15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/10/232,665
 ; CURRENT FILING DATE: 2002-08-29
 ; PRIOR APPLICATION NUMBER: US-09/377,466
 ; PRIORITY FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: Patentin Ver. 2.0
 ; SEQ ID NO: 16
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1)..(653)
 ; OTHER INFORMATION: Cry3Bb1 variant v11231
 US-10-232-665-16

Query Match 99.1%; Score 3377; DB 14; Length 653;
 Best Local Similarity 99.4%; Pred. No. 1e-259; Prod. No. 1e-259; Length 653;
 Matches 647; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 2 NPNNRSEHTIKTPNSELQTNINQYPLADNPNSTLEELINYKSPFLRMTDSSTEVLNDST 61
 Db 3 NPNNRSEHTIKTPNSELQTNINQYPLADNPNSTLEELINYKSPFLRMTDSSTEVLNDST 62

Qy 62 VDAVGTGISVVGQILGVGVPPAGALTSFYQSFLNTIWPSDAPWKAQVEVLIDKK 121
 Db 63 VDAVGTGISVVGQILGVGVPPAGALTSFYQSFLNTIWPSDAPWKAQVEVLIDKK 122

Qy 122 IEEYAKSKALAELQGLNNFEDYNALNSWKTKPLSLRSKRSQRDRFLSQAESHRNS 181
 Db 123 IEEYAKSKALAELQGLNNFEDYNALNSWKTKPLSLRSKRSQRDRFLSQAESHRNS 182

Qy 182 MPSPAVSKKEVLFLPTYQAANTHLLKDAQVFGEEENGSSDVAEYHRQLKLTQQYT 241
 Db 183 MPSPAVSKKEVLFLPTYQAANTHLLKDAQVFGEEENGSSDVAEYHRQLKLTQQYT 242

Qy 242 DHCVNWNVNGLNGLRGSTDAWYKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTELT 301
 Db 243 DHCVNWNVNGLNGLRGSTDAWYKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTELT 302

Qy 302 RDIFTDPFLSNTLQEQYGPFTLSENSIRKPHLFDYLOGIEFTRLQPGYFGKDSFNWYS 361
 Db 303 RDIFTDPFLLTLQKYGTFLSENSIRKPHLFDYLOGIEFTRLQPGYFGKDSFNWYS 362

Qy 362 GNYVETRPSIGSSKTITSFYGDKSTEPVQKLSFDGQKVRVTIANTDAWPNKGVYLGV 421
 Db 363 GNYVETRPSIGSSKTITSFYGDKSTEPVQKLSFDGQKVRVTIANTDAWPNKGVYLGV 422

Qy 422 TKVDFSOYDDQNETSTOTYDSKRNGHVSQDSDIDQLPPTTDEPLEKAYSHOLNAYAC 481
 Db 423 TKVDFSQDDQNETSTOTYDSKRNGHVSQDSDIDQLPPTTDEPLEKAYSHOLNAYAC 482

Qy 482 FLMDQRRCTTIPFFTWTHRSVDFENTIDAEEKITOLPVYKAYALSSGASIEGPGFTGGNL 541
 Db 483 FLMDQRRCTTIPFFTWTHRSVDFENTIDAEEKITOLPVYKAYALSSGASIEGPGFTGGNL 542

RESULT 40
 US-10-232-665-37
 ; Sequence 37, Application US/10232665
 ; Publication No. US20030115630A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/10/232,665
 ; CURRENT FILING DATE: 2002-08-29
 ; PRIOR APPLICATION NUMBER: US-09/377,466
 ; PRIORITY FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: Patentin Ver. 2.0
 ; SEQ ID NO: 37
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1)..(653)
 ; OTHER INFORMATION: variant Cry3Bb1 coding sequence encoding v11231
 US-10-232-665-37

Query Match 99.1%; Score 3377; DB 14; Length 653;
 Best Local Similarity 99.4%; Prod. No. 1e-259; Prod. No. 1e-259; Length 653;
 Matches 647; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 2 NPNNRSEHTIKTPNSELQTNINQYPLADNPNSTLEELINYKSPFLRMTDSSTEVLNDST 61
 Db 3 NPNNRSEHTIKTPNSELQTNINQYPLADNPNSTLEELINYKSPFLRMTDSSTEVLNDST 62

Qy 62 VDAVGTGISVVGQILGVGVPPAGALTSFYQSFLNTIWPSDAPWKAQVEVLIDKK 121
 Db 63 VDAVGTGISVVGQILGVGVPPAGALTSFYQSFLNTIWPSDAPWKAQVEVLIDKK 122

Qy 122 IEEYAKSKALAELQGLNNFEDYNALNSWKTKPLSLRSKRSQRDRFLSQAESHRNS 181
 Db 123 IEEYAKSKALAELQGLNNFEDYNALNSWKTKPLSLRSKRSQRDRFLSQAESHRNS 182

Qy 182 MPSPAVSKKEVLFLPTYQAANTHLLKDAQVFGEEENGSSDVAEYHRQLKLTQQYT 241
 Db 183 MPSPAVSKKEVLFLPTYQAANTHLLKDAQVFGEEENGSSDVAEYHRQLKLTQQYT 242

Qy 242 DHCVNWNVNGLNGLRGSTDAWYKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTELT 301
 Db 243 DHCVNWNVNGLNGLRGSTDAWYKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTELT 302

Qy 302 RDIFTDPFLSNTLQEQYGPFTLSENSIRKPHLFDYLOGIEFTRLQPGYFGKDSFNWYS 361
 Db 303 RDIFTDPFLLTLQKYGTFLSENSIRKPHLFDYLOGIEFTRLQPGYFGKDSFNWYS 362

Qy 362 GNYVETRPSIGSSKTITSFYGDKSTEPVQKLSFDGQKVRVTIANTDAWPNKGVYLGV 421
 Db 363 GNYVETRPSIGSSKTITSFYGDKSTEPVQKLSFDGQKVRVTIANTDAWPNKGVYLGV 422

Qy 422 TKVDFSOYDDQNETSTOTYDSKRNGHVSQDSDIDQLPPTTDEPLEKAYSHOLNAYAC 481
 Db 423 TKVDFSQDDQNETSTOTYDSKRNGHVSQDSDIDQLPPTTDEPLEKAYSHOLNAYAC 482

Qy 482 FLMDQRRCTTIPFFTWTHRSVDFENTIDAEEKITOLPVYKAYALSSGASIEGPGFTGGNL 541
 Db 483 FLMDQRRCTTIPFFTWTHRSVDFENTIDAEEKITOLPVYKAYALSSGASIEGPGFTGGNL 542

RESULT 41
US-10-232-665-39
; Sequence 39, Application US/10232665
; Publication No. US20030115630A1
GENERAL INFORMATION:
; APPLICANT: Romano, Charles P.
; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
; FILE REFERENCE: 38-21 (15304) Cry3Bb Improved Exp. Corn
; CURRENT APPLICATION NUMBER: US/10/232,665
; CURRENT FILING DATE: 2002-08-29
; PRIOR APPLICATION NUMBER: US/09/377,466
; PRIOR FILING DATE: 1999-08-19
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: Patent Ver. 2.0
; SEQ ID NO: 39
; LENGTH: 653
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE: PRT
; NAME/KEY: PRT
; LOCATION: (1) . (653)
; OTHER INFORMATION: variant Cry3Bb1 coding sequence encoding v11231
; us-10-232-665-39

Query Match 99.1%; Score 3377; DB 14; Length 653;
Best Local Similarity 99.4%; Pred. No. 1e-259;
Matches 647; Conservative 3; Indels 0; Gaps 0;

Qy 2 NPNNRSEHDTIKTPNSLQIOTNHNOYPLADNENSTLEFLNKYKEFLEMDSSTEVDNST 61
Db 3 NPNNRSEHDTIKTPNSLQIOTNHNOYPLADNENSTLEFLNKYKEFLEMDSSTEVDNST 62

Qy 62 VDAVGTGISVWQQLGVGVPPAGALTFSYOSFLNTIWPSPADPKAFMAQVEVLIDK 121
Db 63 VDAVGTGISVWQQLGVGVPPAGALTFSYOSFLNTIWPSPADPKAFMAQVEVLIDK 122

Qy 122 IEEYAKSKLAELQGLQNFEDTNAINSWKCTPLSRSKSDQRRELTSSTEVDNST 121
Db 123 IEEYAKSKLAELQGLQNFEDTNAINSWKCTPLSRSKSDQRRELTSSTEVDNST 122

Qy 182 MPSFAVSKEVTLPLPTYAQAAANTHLLIKDQAQEVGEENGYSSVEDAFTYRQLKLTQYT 241
Db 183 MPSFAVSKEVTLPLPTYAQAAANTHLLIKDQAQEVGEENGYSSVEDAFTYRQLKLTQYT 242

Qy 242 DHCYNWNINGLNGLRGSTYDWTKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTEL T 301
Db 243 DHCYNWNINGLNGLRGSTYDWTKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTEL T 302

Qy 302 RDIFTDPPIPLSLTQEGFTFLSNTSRPHLFYLOGIEHTRLQGYFGKDSFNYWS 361
Db 303 RDIFTDPPIPLTLIQKYGETFLSTENSIRKPHLFYLOGIEHTRLQGYFGKDSFNYWS 362

Qy 362 GNYVETRPSIGSSKTKTSPFYGDKSTEPEVKLSDGQKVYRTANTDVAWPGKYLGV 421
Db 363 GNYVETRPSIGSSKTKTSPFYGDKSTEPEVKLSDGQKVYRTANTDVAWPGKYLGV 422

Qy 422 TKVDFSQYDDQKNETSTQYDSCRNNGHVSQDSDIDOLPPTDEPLEKAYSHQNLTAEC 481
Db 423 TKVDFSQYDDQKNETSTQYDSCRNNGHVSQDSDIDOLPPTDEPLEKAYSHQNLTAEC 482

Qy 482 FLMQDRRGTTPFPTWTHRSYDFENTIDAKXITQLPVVKAYALSSGASIEGPGFTGENL 541
Db 483 FLMQDRRGTTPFPTWTHRSYDFENTIDAKXITQLPVVKAYALSSGASIEGPGFTGENL 542

RESULT 42
US-10-614-076-100
; Sequence 100, Application US/10614076
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Slatin, Stephen L.
TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
FILE REFERENCE: MECO-218-1
CURRENT APPLICATION NUMBER: US/10/614,076
CURRENT FILING DATE: 2003-07-03
PRIORITY NUMBER: 09/427,770
PRIORITY NUMBER: 1999-10-27
PRIORITY NUMBER: 08/993,722
PRIORITY NUMBER: 1997-12-18
SOFTWARE: Patentin version 3.2
SEQ ID NO: 100
LENGTH: 653
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Recombinant delta endotoxin
US-10-614-076-100

Query Match 99.1%; Score 3377; DB 15; Length 653;
Best Local Similarity 99.4%; Pred. No. 1e-259;
Matches 647; Conservative 3; Indels 0; Gaps 0;

Qy 2 NPNNRSEHDTIKTPNSLQIOTNHNOYPLADNENSTLEFLNKYKEFLEMDSSTEVDNST 61
Db 3 NPNNRSEHDTIKTPNSLQIOTNHNOYPLADNENSTLEFLNKYKEFLEMDSSTEVDNST 62

Qy 62 VDAVGTGISVWQQLGVGVPPAGALTFSYOSFLNTIWPSPADPKAFMAQVEVLIDK 121
Db 63 VDAVGTGISVWQQLGVGVPPAGALTFSYOSFLNTIWPSPADPKAFMAQVEVLIDK 122

Qy 122 IEEYAKSKLAELQGLQNFEDTNAINSWKCTPLSRSKSDQRRELTSSTEVDNST 121
Db 123 IEEYAKSKLAELQGLQNFEDTNAINSWKCTPLSRSKSDQRRELTSSTEVDNST 122

Qy 182 MPSFAVSKEVTLPLPTYAQAAANTHLLIKDQAQEVGEENGYSSVEDAFTYRQLKLTQYT 241
Db 183 MPSFAVSKEVTLPLPTYAQAAANTHLLIKDQAQEVGEENGYSSVEDAFTYRQLKLTQYT 242

Qy 242 DHCVNWNINGLNGLRGSTYDWTKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTEL T 301
Db 243 DHCVNWNINGLNGLRGSTYDWTKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVTEL T 302

Qy 302 RDIFTDPPIPLSLTQEGFTFLSNTSRPHLFYLOGIEHTRLQGYFGKDSFNYWS 361
Db 303 RDIFTDPPIPLTLIQKYGETFLSTENSIRKPHLFYLOGIEHTRLQGYFGKDSFNYWS 362

Qy 362 GNYVETRPSIGSSKTKTSPFYGDKSTEPEVKLSDGQKVYRTANTDVAWPGKYLGV 421
Db 363 GNYVETRPSIGSSKTKTSPFYGDKSTEPEVKLSDGQKVYRTANTDVAWPGKYLGV 422

Qy 422 TKVDFSQYDDQKNETSTQYDSCRNNGHVSQDSDIDOLPPTDEPLEKAYSHQNLTAEC 481
Db 423 TKVDFSQYDDQKNETSTQYDSCRNNGHVSQDSDIDOLPPTDEPLEKAYSHQNLTAEC 482

Qy 482 FLMQDRRGTTPFPTWTHRSYDFENTIDAKXITQLPVVKAYALSSGASIEGPGFTGENL 541
Db 483 FLMQDRRGTTPFPTWTHRSYDFENTIDAKXITQLPVVKAYALSSGASIEGPGFTGENL 542

Db	301	TREDFTDTFLLTQKQPTFLSIENSTRKPHLFVDYLGIEPHTRLGPGYFGKDSPEVNW	360
Qy	361	SGNYVETPSIGSSKTTSPTSPYGDKSTPQKLISDOLPPETTDEPLEKAYSHQNLNAYE	420
Db	361	SGNYVETPSIGSSKTTSPTSPYGDKSTPQKLISDOLPPETTDEPLEKAYSHQNLNAYE	420
Qy	421	VTKVDFSSQDDQNETSTQTYDSKRNNCHVSAAQSDIDOLPPETTDEPLEKAYSHQNLNAYE	480
Db	421	VTKVDFSSQDDQNETSTQTYDSKRNNCHVSAAQSDIDOLPPETTDEPLEKAYSHQNLNAYE	480
Qy	481	CFLMQDRGTTIPFETWTRSVDFENTIDAETKTLQPLPVKAYAALSGASLIEGGFTGCGNL	540
Db	481	CFLMQDRGTTIPFETWTRSVDFENTIDAETKTLQPLPVKAYAALSGASLIEGGFTGCGNL	540
Qy	541	LFLKEKSSIAKPKTUNSAALLQYRVRIRASTTNRLFLQNSNDFLVLYINKTMNK	600
Db	541	LFLKEKSSIAKPKTUNSAALLQYRVRIRASTTNRLFLQNSNDFLVLYINKTMNK	600
Qy	601	DDDDLYTQFDLATNSNNNGFSGDNELLIGAESFVSNEKVIDKIEFFPVQL	652
Db	601	DDDDLYTQFDLATNSNNNGFSGDNELLIGAESFVSNEKVIDKIEFFPVQL	652
RESULT 44			
US-10-232-665-12			
; Sequence 12, Application US/10232665			
; Publication No. US20103011563041			
; GENERAL INFORMATION			
; APPLICANT: ROMANO, Charles P.			
; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plant			
; CURRENT APPLICATION NUMBER: US/10/232-665			
; CURRENT FILING DATE: 2002-08-29			
; PRIOR APPLICATION NUMBER: US/09/377,466			
; PRIOR FILING DATE: 1999-08-19			
; NUMBER OF SEQ ID NOS: 43			
; SOFTWARE: PatentIn Ver. 2.0			
; SEQ ID NO: 12			
; LENGTH: 653			
; TYPE: PRT			
; ORGANISM: Artificial Sequence			
; FEATURE:			
; OTHER INFORMATION: Description of Artificial Sequence: non-naturally occurring amino acid sequence encoded by SEQ ID NO:11			
; OTHER INFORMATION: occurring amino acid sequence encoded by SEQ ID NO:11			
; FEATURE:			
; NAME/KEY: PRT			
; LOCATION: (1). (1653)			
; OTHER INFORMATION: amino acid sequence encoded by SEQ ID NO:11			
US-10-232-665-12			
Query Match 99.0%; Score 3373; DB 14; Length 653;			
Best Local Similarity 99.2%; Pred. No. 2, 2e-3; Mismatches 0; Indels 0; Gaps 0; .			
Matches 646; Conservative 0; Gapopen 0; Gapclose 0; Gapcost 0; Gapopencost 0; Gapclosecost 0; .			
Oy			
2 NPNNRSEDTIKVTPNSELQTNHNOYPLADNPNSTLBELENKYFLRMTEDSSTEVLINST			
3 NPNNRSEDTIKVTPNSELQTNHNOYPLADNPNSTLBELENKYFLRMTEDSSTEVLINST			
62 VDKAVGRCISNGQILGVUGVPRAGALTSPYQSFINTIWPSSADPMKAQVEVLDKK			
63 VDKAVGRCISVGQILGVUGVPRAGALTSPYQSFINTIWPSSADPMKAQVEVLDKK			
Oy			
122 IEEYAKSKAKAELQGQNINFEDVNALNISWKTPLSRSKRSQDRIBELFSQAESHEFRNS			
123 IEEYAKSKAKAELQGQNINFEDVNALNISWKTPLSRSKRSQDRIBELFSQAESHEFRNS			
Db			
182 MPSFAVSKFEVFLPFTAQAANTHLIJKDQVFGWYSSVEDAFYHROLKLTKOYT			
183 MPSFAVSKFEVFLPFTAQAANTHLIJKDQVFGWYSSVEDAFYHROLKLTKOYT			
Db			
242 DICVNTWINGLNGLRGTCYDANVKMRERENTLUDLIVFDIRLYKGKVTELT			
Qy			

Db	243 DHCVNQVNGLRLGRGSTDYDAWKPNFRFREMTLTVDLTVLFPFYDIRLYSKGVKTEL T 302	Db	243 DHCVNQVNGLRLGRGSTDYDAWKPNFRFREMTLTVDLTVLFPFYDIRLYSKGVKTEL T 302
Qy	302 RDIFTFDIFSLNTLQEKGPTFLSIENSIRKPHLFDLQGLIEFHTRLQPGFKGKDSFNYNS 361	Qy	302 RDIFTFDIFSLNTLQEKGPTFLSIENSIRKPHLFDLQGLIEFHTRLQPGFKGKDSFNYNS 361
Db	303 RDIFTDFIPLLTLQKGPTFLSIENSIRKPHLFDLQGLIEFHTRLQPGFKGKDSFNYNS 362	Db	303 RDIFTDFIPLLTLQKGPTFLSIENSIRKPHLFDLQGLIEFHTRLQPGFKGKDSFNYNS 362
Qy	362 GNYVERTRPSIGSSKTTTSPYGDKSTEPMQLSDFQKVTRIANTDVAAMPNGKVLYG 421	Qy	362 GNYVERTRPSIGSSKTTTSPYGDKSTEPMQLSDFQKVTRIANTDVAAMPNGKVLYG 421
Db	363 GNYVERTRPSIGSSKTTTSPYGDQKVTRIANTDVAAMPNGKVLYG 422	Db	363 GNYVERTRPSIGSSKTTTSPYGDQKVTRIANTDVAAMPNGKVLYG 422
Qy	422 TKVDFSOYDDQRNETSOTYDTSKRNGHVSQDSDIDQLPPETDDELEYAKSHQNYAEC 481	Qy	422 TKVDFSOYDDQRNETSOTYDTSKRNGHVSQDSDIDQLPPETDDELEYAKSHQNYAEC 481
Db	423 TKVDFSOYDDQRNETSOTYDTSKRNGHVSQDSDIDQLPPETDDELEYAKSHQNYAEC 482	Db	423 TKVDFSOYDDQRNETSOTYDTSKRNGHVSQDSDIDQLPPETDDELEYAKSHQNYAEC 482
Qy	482 FLMQDRGCTIPFPTWTHRSDFENTIDAEKTOLPVKAYALSSGASIIEGPGFTGNNLU 541	Qy	482 FLMQDRGCTIPFPTWTHRSDFENTIDAEKTOLPVKAYALSSGASIIEGPGFTGNNLU 541
Db	483 FLMQDRGCTIPFPTWTHRSDFENTIDAEKTOLPVKAYALSSGASIIEGPGFTGNNLU 542	Db	483 FLMQDRGCTIPFPTWTHRSDFENTIDAEKTOLPVKAYALSSGASIIEGPGFTGNNLU 542
Qy	542 FLKESSNSIAKPKVTUNSAALLQYRVRVRASTINLRLFTQNSNDFLTYINKTMNKD 601	Qy	542 FLKESSNSIAKPKVTUNSAALLQYRVRVRASTINLRLFTQNSNDFLTYINKTMNKD 601
Db	543 FLKESSNSIAKPKVTUNSAALLQYRVRVRASTINLRLFTQNSNDFLTYINKTMNKD 602	Db	543 FLKESSNSIAKPKVTUNSAALLQYRVRVRASTINLRLFTQNSNDFLTYINKTMNKD 602
Qy	602 DDLTYQFDLATTNSNMGFSGDKNEELIGAESFVSNEKIIDKIEFIPVOL 652	Qy	602 DDLTYQFDLATTNSNMGFSGDKNEELIGAESFVSNEKIIDKIEFIPVOL 652
Db	603 DDLTYQFDLATTNSNMGFSGDKNEELIGAESFVSNEKIIDKIEFIPVOL 653	Db	603 DDLTYQFDLATTNSNMGFSGDKNEELIGAESFVSNEKIIDKIEFIPVOL 653
<hr/>			
RESULT 45			
US-10-232-665-24			
; Sequence 24, Application US/10232665			
; Publication No. US20030115630A1			
; GENERAL INFORMATION:			
; APPLICANT: Romano, Charles P.			
; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants			
; FILE REFERENCE: 38-21 (15304) Cry3Bb Improved Exp. Corn			
; CURRENT APPLICATION NUMBER: US/10/232-665			
; CURRENT FILING DATE: 2002-08-29			
; PRIOR APPLICATION NUMBER: US/09/377,466			
; PRIOR FILING DATE: 1999-08-19			
; NUMBER OF SEQ ID NOS: 43			
; SOFTWARE: Patentin Ver. 2.0			
; SEQ ID NO: 22			
; LENGTH: 653			
; TYPE: PRT			
; ORGANISM: Artificial Sequence			
; FEATURE:			
; NAME/KEY: PRT			
; LOCATION: (1)-(653)			
; OTHER INFORMATION: Cry3Bb1 variant 11231mv2			
US-10-232-665-24			
Query Match 99.0%; Score 3373; DB 14; Length 653;			
Best Local Similarity 99.2%; Pred. No. 2.2e-259; Matches 646; Conservative 3; Mismatches 3; Indels 0; Gaps 0;			
Qy	2 NPNNRSEHDITKVTNPSELQTNHNOVPLADNPNSTLEELNKYKEPLMTEDSSTEVLDNST 61	Qy	2 NPNNRSEHDITKVTNPSELQTNHNOVPLADNPNSTLEELNKYKEPLMTEDSSTEVLDNST 61
Db	3 NPNNRSEHDITKVTNPSELQTNHNOVPLADNPNSTLEELNKYKEPLMTEDSSTEVLDNST 62	Db	3 NPNNRSEHDITKVTNPSELQTNHNOVPLADNPNSTLEELNKYKEPLMTEDSSTEVLDNST 62
Qy	62 VKDAVGTCGISVYQGIIQGVYPAGALTTSFYOSFLINTIWPSPADPKMAFMAQVEVLIDK 121	Qy	62 VKDAVGTCGISVYQGIIQGVYPAGALTTSFYOSFLINTIWPSPADPKMAFMAQVEVLIDK 121
Db	63 VRDAVGIGISVVGQILGVGVGPAGALTTSFYOSFLINTIWPSPADPKMAFMAQVEVLIDK 122	Db	63 VRDAVGIGISVVGQILGVGVGPAGALTTSFYOSFLINTIWPSPADPKMAFMAQVEVLIDK 122
Qy	122 IEEYAKSKALAELQHQNFDYVNAWSKCKTPLSRKSQDRRELQFQAEFSFRNS 181	Qy	122 IEEYAKSKALAELQHQNFDYVNAWSKCKTPLSRKSQDRRELQFQAEFSFRNS 181
Db	123 IEEYAKSKALAELQHQNFDYVNAWSKCKTPLSRKSQDRRELQFQAEFSFRNS 182	Db	123 IEEYAKSKALAELQHQNFDYVNAWSKCKTPLSRKSQDRRELQFQAEFSFRNS 182
Qy	182 MPSFAVKSFKEVFLPLTVAQANTHLLKKDAQVFGEWGKSSVEDAFYHQKLQTQYT 241	Qy	182 MPSFAVKSFKEVFLPLTVAQANTHLLKKDAQVFGEWGKSSVEDAFYHQKLQTQYT 241
Db	183 MPSFAVKSFKEVFLPLTVAQANTHLLKKDAQVFGEWGKSSVEDAFYHQKLQTQYT 242	Db	183 MPSFAVKSFKEVFLPLTVAQANTHLLKKDAQVFGEWGKSSVEDAFYHQKLQTQYT 242
Qy	242 DHCVNQVNGLRLGRGSTDYDAWKPNFRFREMTLTVDLTVLFPFYDIRLYSKGVKTEL T 301	Qy	242 DHCVNQVNGLRLGRGSTDYDAWKPNFRFREMTLTVDLTVLFPFYDIRLYSKGVKTEL T 301

Db 243 DHCYWNWYNGLRLRGSTYDAWKENRERREMTLVLDLIVLPPFYDIRLYSKGVKTEL T 302
 Qy 302 RDIFTDPFLPSLNTLQEYGPFTFLSIENSIRKPHLFPDYLOGIEFHTRLORYFGKDSFNWS 361
 Db 303 RDIFTDPFLTQIYGKPFPLSNTSLRKPHLFDLQIEFHTRLORYFGKDSFNWS 362
 Qy 362 GNYVETRPSIGSSKTTSPYGDKSTEVPQLSDGQKYRTIANTDVAWPNGKVYLG 421
 Db 363 GNYVETRPSIGSSKTTSPYGDKSTEVPQLSDGQKYRTIANTDVAWPNGKVYLG 422
 Qy 422 TKVDFSYQQDDQNETSTQYDSKRKNNGHVSQAQSIDOLPETTDEPLEKAYSHOLNVAEC 481
 Db 423 TKVDFSYQQDDQNETSTQYDSKRKNNGHVSQAQSIDOLPETTDEPLEKAYSHOLNVAEC 482
 Qy 482 FLMDQRGTTIPFFTWTHRSVDFFNTIDAEEKITOLPVVKAVALSGASIEGPGBTGNNL 541
 Db 483 FLMDQRGTTIPFFTWTHRSVDFFNTIDAEEKITOLPVVKAVALSGASIEGPGBTGNNL 542
 Qy 542 FLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFVIVYINKTMKD 601
 Db 543 FLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFVIVYINKTMKD 602
 Qy 602 DDLYQTQFDLATTNSNMGGSGDKNELIIGAESFSNEKYYIDKIEFIPVQL 652
 Db 603 DDLYQTQFDLATTNSNMGGSGDKNELIIGAESFSNEKYYIDKIEFIPVQL 653
 Db 541 LFLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 600
 RESULT 47
 US-10-614-076-56
 ; Sequence 56, Application US/10614076
 ; Publication No. US20040033523A1.
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Brussoch, Susan M.
 ; APPLICANT: Malvir, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walter, Frederick S.
 ; APPLICANT: Staln, Stephen L.
 ; APPLICANT: Von Terch, Michael A.
 ; TITLE OF INVENTION: POLYPTILINE COMPOSITIONS TOXIC TO COLEOPTERAN INSECTS
 ; FILE REFERENCE: MECC-218-1-11792-0218-USVUS01
 ; CURRENT APPLICATION NUMBER: US/10/614,076
 ; CURRENT FILING DATE: 2003-07-03
 ; PRIOR APPLICATION NUMBER: 09/427,770
 ; PRIOR FILING DATE: 1999-10-27
 ; PRIOR APPLICATION NUMBER: 08/993,722
 ; PRIOR FILING DATE: 1997-12-18
 ; NUMBER OF SEQ ID NOS: 113
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 56
 ; LENGTH: 651
 ; TYPE: PRT
 ; ORGANISM: Artificial sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant delta endotoxin
 US-10-614-076-56

Query Match 98.8%; Score 3366.5; DB 15; Length 651;
 Best Local Similarity 99.1%; Pred. No. 7.1e-259;
 Matches 646; Conservative 2; Mismatches 3; Indels 1; Gaps 1;

Qy 1 MNPNRNRSEHTIKTPNSLQTNENQPLADNPNSTBLNKGFLRMEDSSTEVLDNS 60
 Db 1 MNPNRNRSEHTIKTPNSLQTNENQPLADNPNSTBLNKGFLRMEDSSTEVLDNS 60
 Qy 61 TVDAVGIGTISWVQILGVGVPPAGALTSFYOSFLNTWPSDPAFKMAQEYVLIDK 120
 Db 61 TVDAVGIGTISWVQILGVGVPPAGALTSFYOSFLNTWPSDPAFKMAQEYVLIDK 119
 Qy 121 KIEEYAKSKALAELQGLQNONFEDYVNAISWKCTPLSLRSRKSODRILFQSOAESHRN 180
 Db 120 KIEEYAKSKALAELQGLQNONFEDYVNAISWKCTPLSLRNPHSQGR.LRELFQSOAESHRN 179

Qy 181 SMPSPAVSKPEVLFPLPTYAQAAANTHLLLKDAQVGEENGSSSDVAEFPYHQLKLTOQY 240
 Db 180 SMSEAVSKPEVLFPLPTYAQAAANTHLLLKDAQVGEENGSSSDVAEFPYHQLKLTOQY 239
 Qy 241 TDHCVNWVNGLNGLGSYDVKFNFRRENTLVLDLIVLFFDYLRYSKGVKTEL 300
 Db 240 TDHCVNWVNGLNGLGSYDVKFNFRRENTLVLDLIVLFFDYLRYSKGVKTEL 299
 Qy 301 TRDIFTDPFLPSLNTLQEQGPTFLSIENSIRKPHLFPDYLOGIEPTFLQGKSYKVRITANTDVAWPNGKVYLG 420
 Db 300 TRDIFTDPFLPSLNTLQEQGPTFLSIENSIRKPHLFPDYLOGIEPTFLQGKSYKVRITANTDVAWPNGKVYLG 359
 Qy 361 SGNYVETRPSIGSSKTTSPYGDKSTEVPQKLSDPGQKVYRTIANTDVAWPNGKVYLG 419
 Db 360 SGNYVETRPSIGSSKTTSPYGDKSTEVPQKLSDPGQKVYRTIANTDVAWPNGKVYLG 419
 Qy 421 VTKVDFSYQOYDDQNETSTQYD SKRKNNGHVSQAQSIDOLPETTDEPLEKAYSHQLNAYE 480
 Db 420 VTKVDFSYQOYDDQNETSTQYD SKRKNNGHVSQAQSIDOLPETTDEPLEKAYSHQLNAYE 479
 Qy 481 CFIMQDRGTIPFFTWTHRSVDFFNTIDAEEKITOLPVVKAVALSGASIEGPGBTGNL 540
 Db 480 CFIMQDRGTIPFFTWTHRSVDFFNTIDAEEKITOLPVVKAVALSGASIEGPGBTGNL 539
 Qy 540 LFELKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 599
 Db 541 DDDLTYQFDLATTNSNMGGSGDKNELIIGAESFSNEKYYIDKIEFIPVQL 652
 Qy 601 DDDLTYQFDLATTNSNMGGSGDKNELIIGAESFSNEKYYIDKIEFIPVQL 652
 Db 600 DDDLTYQFDLATTNSNMGGSGDKNELIIGAESFSNEKYYIDKIEFIPVQL 651
 Qy 651 LFLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 599
 Db 652 LFLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 599
 Qy 653 LFLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 599
 Db 654 LFLKESNSNIAKFKVTLNSALLQRYVRVRASTNLRLFVQNSNNDFLVTKINKMK 599
 RESULT 48
 US-10-232-665-10
 ; Sequence 10, Application US/10232665
 ; Publication No. US20030115630A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-21 (15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/10/232,665
 ; CURRENT FILING DATE: 2003-08-29
 ; PRIOR APPLICATION NUMBER: US/10/232,665
 ; PRIOR FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 10
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: non-naturally
 ; occurring amino acid sequence encoded by SEQ ID NO:9
 ; OTHER INFORMATION: occurring amino acid sequence encoded by SEQ ID NO:9
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1)..(653)
 ; OTHER INFORMATION: amino acid sequence encoded by SEQ ID NO:9
 US-10-232-665-10

Query Match 98.8%; Score 3366.5; DB 14; Length 653;
 Best Local Similarity 99.1%; Pred. No. 7.8e-259;
 Matches 645; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Qy 2 NPNNRSEHTIKTPNSLQTNENQPLADNPNSTBLNKGFLRMEDSSTEVLDNST 61
 Db 3 NPNNRSEHTIKTPNSLQTNENQPLADNPNSTBLNKGFLRMEDSSTEVLDNST 62
 Qy 62 VKDAGTGIGTISWVQILGVGVPPAGALTSFYOSFLNTWPSDPAFKMAQEYVLIDK 121
 Db 63 VKDAGTGIGSWSVQILGVGVPPAGALTSFYOSFLNTWPSDPAFKMAQEYVLIDK 122

RESULT 49
 US-10-232-665-18
 ; Sequence 18, Application US/10232665
 ; Publication No. US20030115630A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/10/232,665
 ; PRIORITY APPLICATION NUMBER: US/09/377,466
 ; PRIOR FILING DATE: 1999-08-19
 ; SOFTWARE: SEQ ID NOS: 43
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 18
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1)..(653)
 ; OTHER INFORMATION: Cry3Bb1 variant 11231mv1
 US-10-232-665-18

Query Match 98.8%; Score 3366; DB 14; Length 653;
 Best Local Similarity 99.1%; Pred. No. 7.8e-259; Matches 645;保守性 2; Mismatches 4; Indels 0; Gaps 0;

Qy 122 TEEYAKSKALAAELOGIQNFFEDYVNAALNSWKKTPSLRSKRSQDRIRELFSQAESHFRNS 181
 Db 123 TEEYAKSKALAAELOGIQNFFEDYVNAALNSWKKTPSLRSKRSQDRIRELFSQAESHFRNS 182

Qy 182 MPSFAVSKEVFLFLPTYAQAANTHLLLKDQVGEWGSSEDVAEFYRQLKLQTQYT 241
 Db 183 MPSFAVSKEVFLFLPTYAQAANTHLLLKDQVGEWGSSEDVAEFYRQLKLQTQYT 242

Qy 242 DHCVNWNVNGLRLGSTYDAWKERNFRPREMTLVLDLIVLPFPDIRLYSKGKYTEL 301
 Db 243 DHCVNWNVNGLRLGSTYDAWKERNFRPREMTLVLDLIVLPFPDIRLYSKGKYTEL 302

Qy 302 RDIFTDPISLNTLOGYGPTPLSIENSIRKPHLFDYLOGTEFHTRLQPGYFGKDSFNYWS 361
 Db 303 RDIFTDPISLNTLOGYGPTPLSIENSIRKPHLFDYLOGTEFHTRLQPGYFGKDSFNYWS 362

Qy 362 GNYVETRPSIGSSKTITSPYFGDKSTEPVKQLSFQDGKVYRTIANTDVAAPNGKVYLGV 421
 Db 363 GNYVETRPSIGSSKTITSPYFGDKSTEPVKQLSFQDGKVYRTIANTDVAAPNGKVYLGV 422

Qy 422 TKUDFSDQDNESTOTYSKRNCHVSAQDSDTQLPPTTDELEYASHOLNYAEC 481
 Db 423 TKVDFSDQDNESTOTYSKRNCHVSAQDSDTQLPPTTDELEYASHOLNYAEC 482

Qy 482 FLMDQRGTTPFPTWTHRSVDFNTDAEKITQLPVVKAYAUSGASITBGPFTCGNL 541
 Db 483 FLMDQRGTTPFPTWTHRSVDFNTDAEKITQLPVVKAYAUSGASITBGPFTCGNL 542

Qy 542 FLKESSNSIAKFKVTLNSAALLQYRVRIRYASTTNRLFVQNSNDFLTYINKTMNKD 601
 Db 543 FLKESSNSIAKFKVTLNSAALLQYRVRIRYASTTNRLFVQNSNDFLTYINKTMNKD 602

Qy 602 DDLTYQFDLATTNSMGSGDKNEELIGAESFSNEKITYDKIEFTIPVQL 652
 Db 603 DDLTYQFDLATTNSMGSGDKNEELIGAESFSNEKITYDKIEFTIPVQL 653

RESULT 50
 US-10-232-665-20
 ; Sequence 20, Application US/10232665
 ; Sequence 20, Application US/10232665
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/10/232,665
 ; CURRENT FILING DATE: 2002-08-29
 ; PRIORITY APPLICATION NUMBER: US/09/377,466
 ; PRIOR FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 20
 ; LENGTH: 653
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; NAME/KEY: PRT
 ; LOCATION: (1)..(653)
 ; OTHER INFORMATION: Cry3Bb1 variant 11231mv1
 US-10-232-665-20

Query Match 98.8%; Score 3366; DB 14; Length 653;
 Best Local Similarity 99.1%; Pred. No. 7.8e-259; Matches 645;保守性 2; Mismatches 4; Indels 0; Gaps 0;

Qy 2 NPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLELYNKEFLRMTEDSSTEVLNDST 61
 Db 3 NPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLELYNKEFLRMTEDSSTEVLNDST 62

Qy 62 VKDAYGTGISVYGVQILGVYGVPPAGALTTSYQSFNLTNTWDADPKAFMVAQVEVLIDKK 121
 Db 63 VKDAYGTGISVYGVQILGVYGVPPAGALTTSYQSFNLTNTWDADPKAFMVAQVEVLIDKK 122

Qy	122	I E E Y A K S K A L A E L O G L O N N F E D Y N A L N S W K K T P L S I R S K R S Q D R I R E L F S Q E S H F R N S	181
Db	123	I E E Y A K S K A L A E L O G L O N N F E D Y N A L N S W K K T P L S I R S K R S Q D R I R E L F S Q E S H F R N S	182
Qy	182	M P S F A V S K E V L F L P T Y A Q A A N T H U L L I K D A Q V G E E M Y S S E D V A E F V H Q R L Q T Q Y T	241
Db	183	M P S F A V S K E V L F L P T Y A Q A A N T H U L L I K D A Q V G E E M Y S S E D V A E F V H Q R L Q T Q Y T	242
Qy	242	D H C V N W Y N G L N G L R G S T Y D A W Y K F N R F R E M T L T V L D I L V L P F Y D I R L Y S K G V K T E L T	301
Db	243	D H C V N W Y N G L N G L R G S T Y D A W Y K F N R F R E M T L T V L D I L V L P F Y D I R L Y S K G V K T E L T	302
Qy	302	R D I F T D P I E S L N T L Q E Y G P T E L S I E N S T R K P H I F D Y L O G I E F T T R L Q P Q Y F G K D S F N Y W S	361
Db	303	R D I F T D P I E F L L T L Q K Y G T F L S I E N S T R K P H I F D Y L O G I E F T T R L Q P Q Y F G K D S F N Y W S	362
Qy	362	G N Y V E T R P I G S S K T I T S P Y G D K S T E P Q K L S P D G Q R Y K T R I A N T D V A W P N G K Y U L G	421
Db	363	G N Y V E T R P I G S S K T I T S P Y G D K S T E P Q K L S P D G Q R Y K T R I A N T D V A W P N G K Y U L G	422
Qy	422	T K V D F S Q Y D D Q K N E T S T Q Y D S K R N N G H V S A Q D S I D Q L P P E T T D E P L E K A Y S H O L N T A E C	481
Db	423	T K V D F S Q Y D D Q K N E T S T Q Y D S K R N N G H V S A Q D S I D Q L P P E T T D E P L E K A Y S H O L N T A E C	482
Qy	482	F L M O D R R G T I P P F W T H R S V D F F N T I D A K I T O L P V V K A Y A L S G A S T I E G P G F T G G N L	541
Db	483	F L M O D R R G T I P P F W T H R S V D F F N T I D A K I T O L P V V K A Y A L S G A S T I E G P G F T G G N L	542
Qy	542	F L K E S S N S I A K F Y T L N S A L L O R Y R Y R Y A S T T N L R F V Q N S N N D P L V I Y I N K T N K D	601
Db	543	F L K E S S N S I A K F Y T L N S A L L O R Y R Y R Y A S T T N L R F V Q N S N N D P L V I Y I N K T N K D	602
Qy	602	D D J T Y Q T F L A T T N S N M G S G D K N E L I G A E S F V S N E K I Y I D K I E F I P V Q L	652
Db	603	D D J T Y Q T F L A T T N S N M G S G D K N E L I G A E S F V S N E K I Y I D K I E F I P V Q L	653

Search completed: February 14, 2005, 15:26:27
 Job time : 149 secs

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